BULLETIN OF

THE CITADEL

THE MILITARY COLLEGE OF SOUTH CAROLINA

FOUNDED 1842

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CATALOGUE ISSUE

1953-1954

CHARLESTON, S. C.

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THE PURPOSE OF MILITARY TRAINING AT THE CITADEL

The Citadel is a military college, but its chief concern is to prepare men for civil life. Because of the military record of Citadel graduates, there has grown up an erroneous impression that the institution exists to prepare men for war. The College is justly proud of the war record of its sons and it will always expect them to respond in national emergencies, but its chief purpose is to prepare men for civil pursuits by giving them a sound education reinforced by the best features of military training.

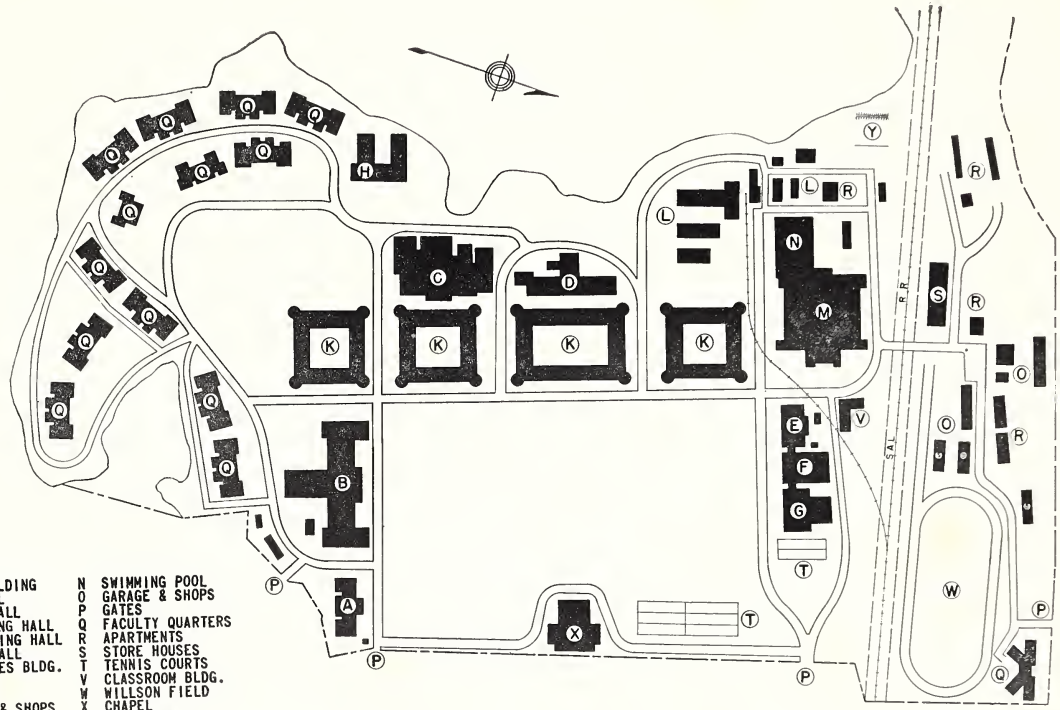
Military training teaches the value of system and order in approaching tasks, of physical and mental fitness, and of alertness and self-confidence. It teaches how to command and how to obey, how to organize and coordinate, and how to maintain morale and discipline. Most important of all, it instills the conviction that any sacrifice must be made when principle is involved and that truth, honor, and integrity are the basis of character. Such virtues woven into the lives of men will produce results for good irrespective of the field in which they are applied.

A civic leader, no less than a military commander, must be prepared to meet difficult or hazardous situations courageously and effectively, to make decisions and enforce them, to lead when it is his duty to lead, and to follow when it is his duty to follow, and to inspire confidence through his resourcefulness, honesty, and courage. Such qualities The Citadel attempts to develop in its cadets.

The training is not given at the expense of academic education. On the contrary, the aim is to make academic training more complete and effective through development of soldierly virtues. Graduates in many vocations and in many parts of the world attest the value of the rigorous regimen of classroom, barracks, and drill field.

Many desirable characteristics do not grow out of scholarship alone; traditions and codes may more profoundly influence college men than the most scholarly lectures. For this reason, to its academic training, which it assiduously seeks to make vital, The Citadel adds the code of the cadet and gentleman. The visible symbol of this is the proudly-worn uniform, and a constant reminder that Alma Mater expects of every son the poise and culture of a student, the public spirit and unselfishness of an enlightened citizen, the courage and loyalty of a soldier, and the honor and bearing of a gentleman.

"I call, therefore, a complete and generous education that which fits a man to perform justly, skillfully, and magnanimously all the offices, both private and public, of peace and war." — MILTON.



PLAN OF BUILDINGS AND GROUNDS

COLLEGE CALENDAR FOR 1953-1954

1953

Summer Session

June 29, Monday, 9:00 A. M.	Session begins
July 4, Saturday	Independence Day, a holiday
August 1, Saturday	First half session ends
August 3, Monday, 9:00 A. M.	Second half session begins
September 5, Saturday	Session ends

Fall Quarter

September 14, Monday, 9:00 A. M.	New cadets report
September 21, Monday, 9:00 A. M.	Fall Quarter begins
October 10, Saturday	Homecoming Day
October 24, Saturday	Parents' Day
November 24, Tuesday, after classes	Thanksgiving holidays begin
November 29, Sunday, 6:00 P. M.	Thanksgiving holidays end
December 12-18	Examinations
December 19, Saturday	Graduation exercises

1954

Winter Quarter

January 4, Monday, 9:00 A. M.	Winter Quarter begins
February 22, Monday	Washington's Birthday, a holiday
March 12-18	Examinations
March 19, Friday	Corps Day
March 20, Saturday	Graduation exercises

Spring Quarter

March 29, Monday, 9:00 A. M.	Spring Quarter begins
June 4-10	Examinations
June 12, Saturday	Graduation exercises

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*Term ends June 30, 1953

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*On leave of absence.

HISTORICAL SKETCH

The Citadel, The Military College of South Carolina, has a history rich in interest and significance. The story unfolds from the humble beginnings in 1843 on Marion Square in the heart of Charleston with twenty young South Carolina cadets and ranges through the vicissitudes of war and adversity to an institution now housed in a great group of buildings on the Ashley River in Charleston with cadets from the length and breadth of the United States. There have been breaks in the continuity of the story, but in the spirit and purpose of the institution the thread is unbroken. Despite the changes of time and circumstances, the group on the Ashley to-day is in unbroken spiritual continuity with the group that reported to Marion Square in 1843. The vision of the founders was that citizens of a free country should be trained to serve their country in peace and war, and thus they founded an institution devoted to a union of military and academic education and designed to achieve this dual objective. From this objective the institution has never departed.

Before 1842 the State of South Carolina had two depositories for its arms and munitions of war—one known as The Citadel, in Charleston; the other known as The Arsenal, in Columbia. These were guarded by companies of enlisted men and trained officers and were maintained at an expense of twenty-four thousand dollars a year.

It was Governor Richardson who suggested that these garrisons be replaced by young men, who while serving as guards, should receive military training and instruction in the practical and mechanical arts. Under the administration of his successor, Governor Hammond, an act of the legislature was passsed on December 20, 1842, creating The Citadel and Arsenal Academies.

The board appointed by the Governor to carry out the purpose of the act lost no time in performing its duty, and the faculty of The Citadel was elected on February 23 following. By March 20 both The Citadel and the The Arsenal were in operation.

In arranging the course of studies for The Citadel, the 1843 report of the board to the General Assembly says:

"The Board has aimed at a system of education at once scientific and practical, which, if their original design is carried out, will eminently qualify the cadets there taught for almost any station and condition of life.

"During the course, besides the usual branches taught at the primary schools in the State, they will be instructed in the history of South

Carolina, modern history, the French language, every department of mathematics, bookkeeping, rhetoric, moral philosophy, architectural and topographical drawing, natural philosophy, chemistry, geology, mineralogy, botany, civil and military engineering, the constitutional law of the United States, and the law of nations. In addition to that course, they will be instructed in the duties of the soldier, the school of the company and the battalion, the science of war, the evolution of the line, and the duties of the commissioned officers."

The Arsenal, at first co-equal with The Citadel, was soon incorporated with it. Cadets spent the first year at The Arsenal and then transferred to The Citadel for the remaining three years of the course.

In 1846 the first class, numbering six men, was graduated from The Citadel. C. C. Tew, the first honor man of his class and proto-graduate of the institution, afterwards founded the Hillsboro Military Academy, North Carolina, was Colonel of North Carolina troops in the Confederate Army, and was killed at Sharpsburg, September 1862, while commanding Anderson's brigade.

The value to the State of the military training at The Citadel is strikingly shown by the fact that, of the two hundred and forty graduates before the close of the War between the States, about two hundred were officers in the Confederate service, and forty-three laid down their lives upon the battlefield. The list of Citadel officers in that great conflict is an honor roll of which any institution might well be proud.

There are two dates in the history of the State military academies which mark the boundaries of this great military struggle of the last century. On January 9, 1861, Major P. F. Stevens, Superintendent and a graduate of The Citadel, in command of a detachment of Citadel Cadets manning a battery of 24-pounders on Morris Island, drove off the steamer, *Star of the West,* which was attempting the relief of Fort Sumter—thus firing the first hostile shot of the war. On May 1, 1865, Captain J. P. Thomas, Superintendent of The Arsenal, and also a graduate of The Citadel, with the Arsenal cadets at his command, had a skirmish with Stoneman's raiders, near Williamston, S. C., thus firing the last shot of the war discharged by any organized body of Confederate troops east of the Mississippi.

At the fall of Charleston in February, 1865, The Citadel was occupied by Federal troops. The corps of cadets was at that time in the field and never returned to the institution, which, in spite of the best efforts of the State to recover it, continued in the hands of the United States military authorities until 1881.

In that year Governor Hagood said in his annual message to the General Assembly:

"The State Military Academy at Charleston has been suspended in its operation since the late civil war. This has been due to the fact that the building known as The Citadel, in which it has its seat, has been since the close of the war in the possession of the United States authorities, and has been used by them until recently as a military post.

"It is understood that the General Government is now prepared to restore it to the custody of the State. It is desirable that this property be recovered and again devoted to the purpose of higher education, in the facilities for which our needs are greater than the source of supply.

"A measure will probably be submitted to you at this session to accomplish this purpose and you will permit me to say that, in my judgment, it is now practicable to reopen the school, and it ought to be done."

An act to authorize the reopening of the South Carolina Military Academy was passed by the General Assembly, and approved January 31, 1882. The Citadel was reopened on October 1, 1882, with 189 cadets and has been in continuous and sucessful operation ever since.

Since the reopening of The Citadel in 1882, many graduates have been given permanent commissions in the armed forces of the United States, and during the Spanish-American War and both World Wars hundreds of graduates and former cadets served as temporary officers. In all emergencies since the founding of The Citadel its graduates and former students have thus strikingly demonstrated the value to the nation of the military training given at the college.

In 1910 the legislature fixed the title of the institution as The Citadel, The Military College of South Carolina.

In 1918 the City of Charleston offered the State a superb tract of nearly 200 acres of land adjacent to Hampton Park and beautifully situated on the banks of the Ashley River, for the erection of a greater Citadel. The legislature accepted the offer and in 1919 and 1920 made appropriations for the necessary buildings.

On September 20, 1922, the college opened in its commodious new quarters, which had been provided at a cost of more than a million dollars. Moreover, since that date numerous improvements and additions have been made. These are described in the pages which immediately follow.

GROUNDS AND BUILDINGS

The Citadel is located on a seventy-eight-acre campus, in the northwestern section of the City of Charleston. On the west lies a wide expanse of grass-covered marsh and the Ashley River; on the north, one

of the better residential sections of the city; on the south, another wide tidal marsh, across which the river and the lower sections of the city are visible in the distance; and on the east, and adjoining the campus, is Hampton Park, one of the famed beauty spots of the Low Country. Thus located, the college has all the advantages of proximity to the city combined with the quiet and beauty of a rural location. The view to the west across the marshes and river is one of rare and changing aspect; and the park to the east, with its wealth of bloom and foliage, gives to the campus an approach of surpassing beauty. The campus itself, with its winding roads, stately live oaks, impressive buildings, and pleasing vistas across green lawns bordered by flowering yards, is a fit habitation for the college and in complete harmony with its high ideals and purposes.

The buildings on the campus, both in design and location, follow the carefully prepared plan made by a firm of distinguished architects long before ground was broken. The general style of the architecture is Spanish-Moorish, with suitable adaptations to local conditions.

There are on the west side of the large drill field four imposing barracks buildings with a total capacity of 2,000. The barracks are rectangular in shape and have large, paved interior courts, which are enclosed by galleries.

The rooms are designed to accommodate two cadets each. These buildings are the living quarters of cadets, and all college activities not in keeping with the community life of the buildings are carried on in other structures. The buildings are so arranged that there is no fire hazard to occupants. Every room has running hot and cold water and I.E.S. lamps.

To the south of the drill field and facing north rises the imposing facade of Bond Hall. Here are housed the Departments of Business Administration, Chemistry, Electrical Engineering, and Physics, the administrative headquarters of the college, the offices of the Association of Citadel Men, and the library. Between Bond Hall and Lesesne Gate stands a thoroughly modern classroom building, which was completed in 1952 to accommodate the Departments of Education, English, History, Mathematics, Modern Languages, and Political Science.

On the north of the drill field stands Alumni Hall, in which are centered athletic and recreational activities. To the west of Alumni Hall is Engineering Hall, in which is housed the Department of Civil Engineering. A third story to this building was added in 1940. The activities building located east of Alumni Hall and facing south was completed in 1939. In this structure are grouped administrative offices, cadet serv-

ice activities, reception rooms for visitors, headquarters for faculty and cadet publications, and an assembly room, which is equipped with a stage, dressing rooms, and facilities for showing pictures.

On the east of the campus, outlined against the rich foliage of Hampton Park and facing the central barracks across the short dimension of the drill field, rises the Cadet Chapel, perhaps the most distinguished building on the campus. Cruciform in shape and severe in its exterior lines, this building conforms in the crenelated parapets of its entrance to the prevailing architectural style of the campus; but above this the lines and details of the buildings become distinctly ecclesiastical in character, thus giving visible evidence of the purpose of the structure. The interior is extraordinary striking in form, arrangement, and quality of material used. All trim is of Indiana limestone; the aisles are paved with the richly colored Crab Orchard sandstone; and the chancel, with colored Tennessee marble. All woodwork, including pews, wainscots, chancel furniture, and the exposed wood trusses and panelled ceiling, is finished in oak brown. The cathedral-like proportions and the impressive churchly atmosphere of the structure are greatly enhanced by the pipe organ. This instrument has been acclaimed by many organists to be of the highest quality. It is the desire of the college authorities to make this structure the focal point of the spiritual life of the institution and a constant reminder of the ideals and traditions of the institution. In furtherance of this end, the clearstory windows carry handsome stained glass memorials to Citadel men. The great window over the chancel is a memorial to all Citadel men who have given their lives in the military service; the small aisle windows are reserved as class memorials, the stained glass figures representing episodes in the life of Christ. An attendant is present in the Chapel every day to recive visitors, and thousands have already signed the visitors' book.

Behind the third barracks is the cadet dining hall. The first part of this structure, seating 1,000, was completed in 1937, and more recent additions have doubled the seating capacity. This building is fully equipped with every needful facility for storing, preparing, and serving food in the most approved manner. Equipment includes a bakery, cold-storage plant, ice-making plant, circulating cold water supply, ice cream plant, gas ranges, gas bread toasters, dish-washing machines, forced draft heating and ventilating system, and other appliances found in the most modern kitchens and dining rooms. Dining room floors are of terrazzo, kitchen floors of ceramic tile, and all wainscots of glazed brick, thus making it easy to maintain cleanliness and sanitation.

Near the dining hall and on the west edge of the campus lies the Mary Bennett Murray Hospital. This hospital conforms to the most

modern standards and affords complete facilities for treating all ordinary cases of sickness. It is presided over by the college surgeon and by a head nurse and her assistant. In order to provide the additional facilities now needed because of the increased size of the student body, an annex has been built.

The laundry, heating plant, carpenter and machine shops, and artillery garages are located in the northwest corner of the campus, where they are well screened from general view. The laundry is equipped to handle all cadet work. All buildings on the campus are heated from the central heating plant, except the chapel, which has a separate plant. Electricity, water, gas, sewerage, drainage, and steam lines serve all buildings, including officers' quarters.

The southern area of the campus is occupied by the residences of the faculty and staff, the dwellings now consisting of the president's house, a duplex house, and eleven four-family units, six of which were completed in 1937 and four in 1939. In 1952 there was completed, on the north side of the campus, a four-story apartment building. Its sixteen commodious and well-appointed apartments provide additional housing for the faculty. As funds become available, it is hoped that similar apartment houses may be erected in this same area to provide quarters for those of the faculty and staff now living in the Old Citadel, on Marion Square.

The facilities of Alumni Hall for athletic, recreational, and social activities having for several years been inadequate, there was included in the group of buildings completed in December, 1939, an armory and field house which is located just north of Murray Barracks in the northwest section of the campus. This building serves as headquarters for the military activities, for indoor drills, athletic contests, dances, and other indoor activities and functions at which large crowds are assembled. The main room of the armory is 150 feet by 200 feet, with the roof at the center of the room, carried by great steel arches, 65 feet above the floor. Galleries running around the four sides of this room will seat approximately 2,500. Under the galleries are armories for storing military equipment and supplies, dressing rooms, and entrances to the drill hall. The offices of the military department are located in the head house on the east of the building. The exterior of the building, following the characteristic crenelated parapeted style of the campus, with its gracefully arched, copper-covered roof, corner pylons, heavily buttressed end elevations with a great expanse of high arched-top windows, is imposing and dignified.

A wing of the armory houses a 45 ft. by 105 ft. swimming pool which is available for year-round use. The pool is equipped with pres-

sure filters and complete sterilizing and heating equipment to assure cleanliness and correct temperature of water.

All the main roads of the campus are paved, and the buildings are connected by concrete sidewalks. In the past few years, hundreds of trees and shrubs have been added to the grounds.

On the extreme north end of the campus is located the cadet athletic field. This includes space for a football field, a quarter-mile running track, with a 220-yard straightaway, and ample space for other field sports. There are ten tennis courts.

Since 1935, approximately $3,500,000.00 has been spent on the physical plant of the college. This has resulted in more than doubling its capacity and in notable improvements in the appearance and utility of the property for educational purposes. All buildings have been constructed to a high standard of quality and in conformity with the original plans as prepared in 1919 when the present site of the college was acquired.

REQUIREMENTS FOR ADMISSION

Applicants for admission to The Citadel must be not less than sixteen nor more than twenty-one years of age. They must be at least five feet in height and physically able to do military duty. See statement about physical examinations under heading "General Information." A certificate of vaccination is required.

Formal application for admission must be submitted by parent or guardian on the blank provided with this catalogue and should be mailed to The Registrar, The Citadel, Charleston, S. C.

Married men are not eligible for enrolment as cadets.

The requirements for admission to the freshman class are those prescribed by the Association of Colleges and Secondary Schools of the Southern States, of which The Citadel is a member. The standards of the Association require "the satisfactory completion of a four-year course of not less than fifteen units in a secondary school approved by a recognized accrediting agency, or in a secondary school that is a member of this Association, or the equivalent of such a course as shown by examination."

In accordance with the above, applicants are admitted to The Citadel either by certificate or by examination. Certificates are accepted only from accredited schools, and should be submitted directly to the college by the principal or superintendent of such school.

The fifteen units must include:

1. Three units of English.
2. Three or more units as a principal sequence selected from one of the following groups:
   (a) A classical language.
   (b) A modern language other than English.
   (c) Social Science (history, civics, economics, problems of democracy, sociology, geography, general business science, and commercial law.)
   (d) Mathematics.
   (e) Natural Science (physics, chemistry, botany, zoology, general biology, general science, physiology, physiography.)
3. Two or more units as a secondary sequence selected from a second group listed under 2.
4. Two units or less in subjects selected from any of the groups listed under 2.
   (Total 10 units in English and groups a-e.)
5. Five units selected from any of the secondary-school subjects accepted by an approved school for its diploma.

In addition to three units of English, applicants for admission must present credit for at least two units in mathematics and one unit of history.

Plane geometry is a prerequisite for trigonometry. If it is not included in the high school credits, it must be taken as a non-credit course in college.

Admission by Examination

Applicants whose credits comply with the requirements for admission to The Citadel but who are not graduates of an accredited secondary school must have their work validated by entrance examinations.

New cadets are not admitted except at the opening of the session in September.

Advanced Standing

The courses of study at The Citadel are outlined on pages 55 through 67, and no student will be accepted as a candidate for a diploma who has not had this work, or its equivalent. It is therefore recommended that reference be made to the requirements for the freshman and sophomore years before application is made for advanced standing. An applicant for advanced standing must present an honorable discharge from the college previously attended, together with a transcript of his college record and entrance credits. It is also advisable to submit a copy of the college catalogue, in which the applicant has marked the courses which he has taken.

ROTC is a required subject and all applicants for admission to The Citadel with advanced standing must present credit for the Basic ROTC courses which they would have taken as cadets at The Citadel. For sophomore standing, credit for first year Basic ROTC is required; for junior standing an applicant must have completed the Basic work prescribed for the senior division ROTC.

In the event ROTC credit is claimed, a copy of ROTC Student Record (NME Form 68) attested by the Professor of Military or Air Science and Tactics of the school or college previously attended must be submitted with application or as soon thereafter as current training is completed. In any case this record must be submitted prior to enrollment at The Citadel.

It is the policy of the Department of Defense to require a student who has been enrolled in an Army, Air Force or Navy unit of the Senior Division of ROTC at Military Junior College (MJC) or Military Institute (MI) at the preparatory level to be enrolled in the same service upon transfer to a college or university.

EXPENSES

Since The Citadel is a state institution, it is operated on a non-profit basis. All fees and expenses are kept at a minimum, but the college reserves the right to adjust them to the current costs at any time to meet the needs for the efficient operation of the school.

Payments

The Quartermaster of The Citadel is the Fiscal Officer, and all transactions relating to payments should be conducted through him. All remittances should be by money order or check made payable to J. F. Bosch, Jr., Quartermaster, and should be mailed direct to him.

If a personal check given in payment for fees is returned by the bank, the student concerned is automatically dropped from the class rolls.

Since The Citadel is operated on low fees and small appropriations, and since there is no reserve fund to carry current expenses, *All Fees Must Be Paid in Advance* in order that the institution may pay its bills promptly, thereby securing the lowest prices and in turn reducing the cost to the students.

A student whose fees have not been paid in advance or on registration day will not be permitted to register or attend classes.

Fees

EDUCATIONAL EXPENSES:

Registration Fee. — All students are required to pay a registration fee of $6.00, which is payable in three quarterly installments of $2.00 each. This fee is intended to cover the general expenses incident to matriculation each quarter. This fee is not refundable.

A charge of $5.00 is made for late registration. Those students registering late will have to await the convenience of the personnel handling the registration and conform to the office hours which can be arranged without disturbing the routine of the offices concerned.

Tuition. — In accordance with the laws of the State of South Carolina the tuition fee has been established as $80.00 for South Carolina students and $250.00 for out-of -state students. This fee is for the regular nine-months term and is payable in three quarterly installments. This fee is not refundable.

Student Activities. — A direct charge of $51.00 is assessed each student for the nine-month term and is payable in three quarterly installments of $17.00. This fee is used for the support and maintenance of

such various student activities as *The Sphinx,* the cadet annual; *The Bulldog,* the cadet newspaper; *The Shako,* the cadet literary magazine; forensics; the Y. M. C. A.; and athletics. This charge is not an admission fee to athletic contests since students are admitted to all athletic games free of charge. This charge is not refundable.

SUBSISTENCE AND MAINTENANCE:

Board. — All students living on the campus are required to eat in the college mess, which is one of the finest in the country. The charge for board is $432.00 for the nine-month term and payable in quarterly installments of $144.00.

Service Fees. — A charge of $120.00 is made for room, heat, light, water, janitor service, laundry, hospital care, and library use, and is payable in three quarterly installments of $40.00, $40.00 and $40.00.

Maintenance Fees. — A charge of $5.00 is made for the normal wear and tear and maintenance of the facilities used by the students. This is payable in three quarterly installments of $2.00, $1.50 and $1.50. This fee is not refundable.

OTHER FEES:

Wilful Damage Deposit. — A $5.00 deposit will be maintained by all cadets while enrolled at The Citadel. When there is insufficient money in the cadet's Quartermaster Account to cover the cost of wilful damages to buildings, rooms and equipment, or the loss of R. O. T. C. Manuals and Government property, this deposit will be used. Otherwise the deposit will be refunded to the cadet within ten days after graduation or withdrawal from The Citadel.

Book and Supplies Deposit. — This deposit is used to cover the cost of books, supplies, uniform alterations, laboratory fees, engineering drawing equipment and supplies. The amount expended by each cadet for these items varies. The required deposit is based on the average needs and in most cases is ample. The students are advised to examine their Quartermaster accounts periodically and limit their purchases to the deposit, or, if necessary, to make additional deposits to take care of their additional needs. The required deposit is as follows:

For Freshmen	$60.00
For Freshmen — Engineering Students who elect drawing (A supplementary bill will be rendered for this deposit to cover the purchase of drawing instruments and supplies.)	40.00
For Sophomores	35.00
For Junior and Seniors	25.00

Uniforms. — All cadets are required to wear The Citadel uniform which will be issued at the college. For cadets who cannot wear ready-made sizes, uniforms are tailored to the individual's measurements by the college tailor.

New cadets should not bring a supply of civilian clothes other than the suit they wear to the school. It is also advisable to bring inexpensive trunks or suitcases since these will not be stored in the cadet's rooms but in a warehouse provided for such at the risk of the owner.

The cost of clothing should not be increased by the wearing of a uniform, but should result in a saving by a better quality of clothing than could be secured for the same amount spent for civilian dress. As the uniform should last for several years if the cadet is careful, the cost of clothing after the first year should be less.

The Uniform and Equipment Deposit is as follows:

Freshmen:
- First Installment $200.00
- Second Installment 25.00

Sophomores, Juniors and Seniors:
- First Installment 25.00
- Second Installment 15.00

Articles of uniforms issued to the Freshmen during the 1951-1952 school year were as follows:

Initial Issue of Uniforms Covered by the First Installment

Quantity	*Article*	*Cost*
1	Wool Blouse	$ 31.87
2	Wool Trousers @ $18.10	36.20
2	Wool Shirts @ $9.98	19.96
1	Rain Coat	13.91
6	Grey Cotton Shirts @ $2.72	16.32
6	Grey Cotton Trousers @ $4.15	24.90
1	Blue Cap	4.46
2	Mattress Covers @ $1.94	3.88
6	Pairs of Drill Gloves	3.72
1	Pair of Dress Leather Gloves	3.26
1	Sweat Suit	2.88
2	T Shirts	1.26
2	Pairs of Athletic Shorts	1.82

Miscellaneous Items:
1 Waist Belt, 2 Class Numerals, 1 Name Tag, 2

Company Letters, 1 Breast Plate, 1 Waist Plate, 1 Tie, 4 Collars, 1 Rain Cap Cover, Music Pouch or Cartridge Box Rental	7.48
	$171.92
South Carolina Sales Tax	5.16
Total Initial Issue of Uniforms	$177.08

Second Issue of Uniforms Covered by the Second Installment

Quantity	*Article*	*Cost*
1	White Cap	$ 4.88
4	Pairs of White Drill Trousers	17.64
		$ 22.52
	South Carolina Sales Tax	.67
	Total Second Issue	$ 23.19

The above prices were in effect during the 1952-1953 School Year and are subject to changes in accordance with contract prices at the time of purchase by the cadets. Extra shirts, trousers, or other articles of uniform in excess of the above quantities are not included in the required deposit. Additional deposits should be made if extra shirts, trousers, or other articles of uniform are desired.

An overcoat and white uniform have been approved and may be worn by the cadets. These two articles of uniform are optional and are not required. They may be purchased by depositing with the Quartermaster the cost of the articles.

The college does not operate a second-hand uniform department nor can it assume responsibility towards assisting in the disposal of uniform items for persons who own them. However, many cadets have been able to purchase used uniforms from former cadets. No used uniforms should be purchased until they have been inspected and approved by the inspecting military officer.

It is pointed out to the students and the parents that those cadets accepted in the R.O.T.C. have during the 1952-1953 school year received from the United States Government in the form of commutation of uniform $25.00 each year for the Freshman and Sophomore years, and $100.00 for the Junior and Senior years combined. This allowance is credited to the cadet's uniform deposit at the end of each quarter as it is earned. The Junior and Senior cadets who are accepted for advanced R.O.T.C. Training also receive a monthly subsistence allow-

ance at the rate of ninety cents per day or a maximum of $521.10 for the Junior and Senior years. This subsistence allowance is paid direct to the cadet by the United States Government.

The estimated R. O. T. C. Allowances are as follows:

Freshman Year:	
Uniform Commutation	$ 25.00
Sophomore Year:	
Uniform Commutation	$ 25.00
Junior Year:	
Uniform Commutation	$ 50.00
Subsistence Allowance	232.20
	$282.20
Senior Year:	
Uniform Commutation	$ 50.00
Subsistence Allowance	288.90
	$338.90

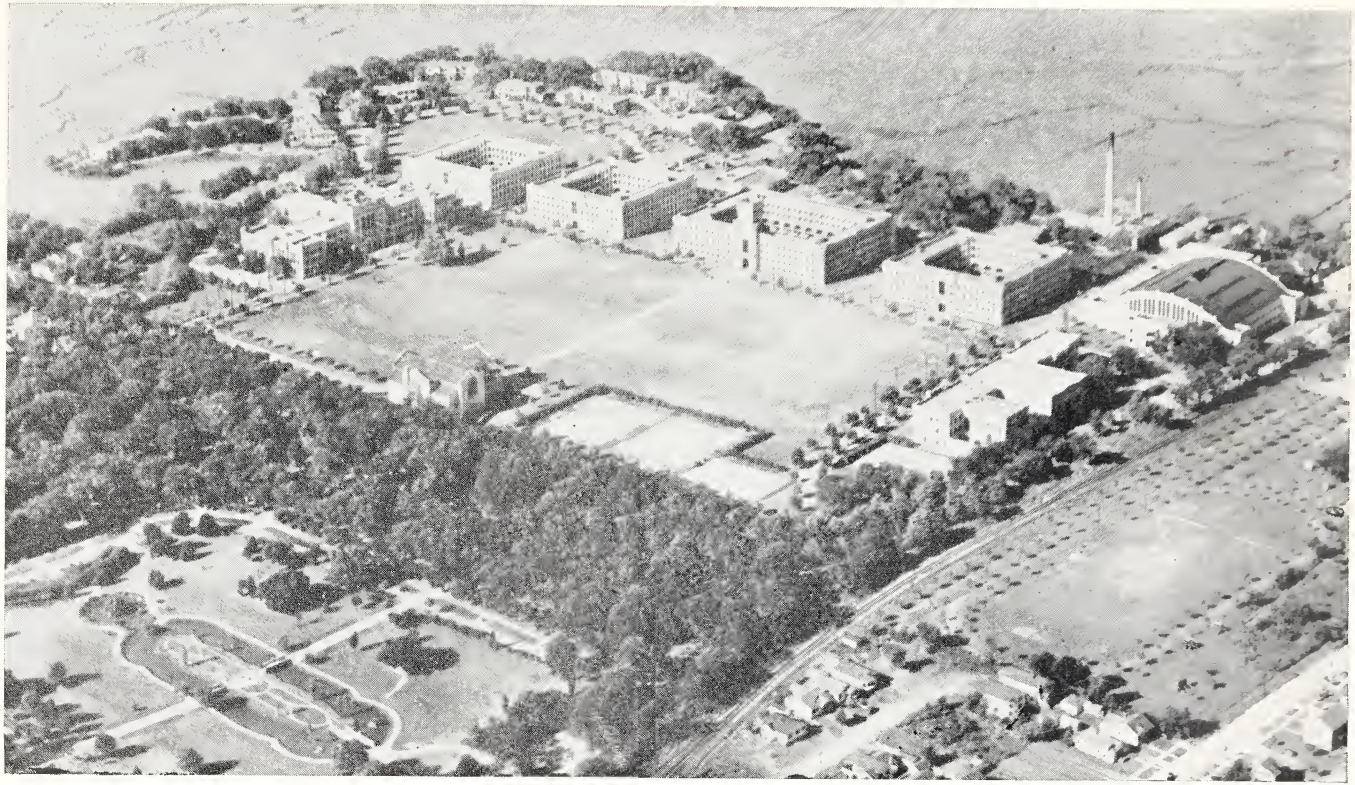
If the cadet uses this money furnished by the United States Government toward his college expenses, he can greatly reduce the costs of his college education.

Class Fund. — This fee is optional and is used to defray the expenses of the formal dances, such as the Thanksgiving, Christmas, Winter, Spring, and Graduation Hops. The charge is $15.00 and is payable in instalments of $7.00, $4.00, and $4.00 on the first, second, and third installments, respectively.

Diploma Fee. — The charge for the diploma is $5.25.

Transcript — Official transcripts of scholastic records will be furnished upon request. There is no charge for the initial transcript, but a fee of $1.00 is charged on all subsequent ones. Remittances for transcripts should be made payable to the Quartermaster. The payment should accompany the application for the transcript and should be mailed direct to the Registrar.

Laboratory Fees.—A laboratory fee of $5.00 a quarter is charged those students taking chemistry, biology, geology, physics, and electrical engineering. This fee is used to cover the added expense of supplies and costly equipment used in the teaching of these courses. This fee is not collected direct but is included in the estimated deposit for books and supplies, and is chargeable against the deposit.



AIR VIEW OF THE CAMPUS

A laboratory fee of $5.00 a quarter is charged to members of the 2nd and 1st classes who are majoring in Physical Education.

Refunds

The size of the faculty and staff and other commitments of the college are based upon the enrollment at the beginning of the term. The fees collected are used to meet these commitments, many of which continue throughout the year. When cadets withdraw it is necessary therefore to retain all fees paid for registration, tuition, student activities, and maintenance. Unused portions of board, service fees, books and uniform deposits will be refunded.

Since the uniform and book deposits are estimated to cover the needs of the cadets for such purchases during the nine month school term, it should not be expected that the school refund this money to the student for his personal needs. The unexpended balances of these deposits will be refunded upon request in June at the close of the nine month term of school; otherwise, they will be held to the cadet's credit until the next term of school or until he withdraws from The Citadel.

Summary of Freshman Expenses

FOR NINE-MONTH TERM

	S. C. Cadets	*Out-of-State Cadets*
Educational Fees:		
Registration	$ 6.00	$ 6.00
Tuition	80.00	250.00
Student Activities	51.00	51.00
Total of Educational Fees	$137.00	$307.00
Subsistence and Maintenance:		
Board (Subject to change)	$432.00	$432.00
Service Fees (Room, janitor service, heat, light, water, laundry, hospital care, and library fee)	120.00	120.00
Maintenance Fee	5.00	5.00
Total Subsistence and Maintenance	$557.00	$557.00
Deposits:		
Wilful Damage	$ 5.00	$ 5.00

Books, supplies, laboratory fees, etc.*	60.00	60.00
Uniforms	225.00	225.00
Total Deposits	$290.00	$290.00
Total average cost for a cadet	$984.00	$1,154.00

Payments for Freshmen

	S. C. Cadets	*Out-of-State Cadets*
First Installment, September 14, 1953†	$475.00	$530.00
Second Installment, January 4,, 1954	279.50	339.50
Third Installment, March 29, 1954	229.50	284.50
Total	$984.00	$1,154.00

Payments for Old Cadets

S. C. Cadets:	*Sophomores*	*Juniors*	*Seniors*
First Installment, Sept. 21, 1953	$295.00	$285.00	$285.00
Second Installment, Jan. 4, 1954	244.50	244.50	244.50
Third Installment, March 29, 1954	229.50	229.50	229.50
Total	$769.00	$759.00	$759.00

Out-of-State Cadets:	*Sophomores*	*Juniors*	*Seniors*
First Installment, Sept. 21, 1953	$350.00	$340.00	$340.00
Second Insallment, Jan. 4, 1954	304.50	304.50	304.50
Third Installment, March 29, 1954	284.50	284.50	284.50
Total	$939.00	$929.00	$929.00

The Class Fund, which is used for formal dances, has not been added to these figures. This is an optional fee (see page 136) and is payable in installments of $7.00, $4.00 and $4.00 on the first, second and third installments, respectively.

*An additional deposit of $40.00 for Freshmen who elect engineering drawing.

†A supplementary bill of $40.00 will be rendered for Freshmen who elect engineering drawing.

Summary of Expenses for Four Years

The expenses at The Citadel for the four-year term are estimated at $3,271.00 for South Carolina cadets and $3,951.00 for out-of-state cadets. The average yearly cost for the four years is $817.75 for South Carolina cadets and $987.75 for out-of-state cadets. These estimates cover all college expenses for registration, tuition, board, room, heat, light, water, janitor service, laundry, medical care for ordinary sickness, library, books and uniforms.

The estimated allowance from the United States Government for those students enrolled in R.O.T.C. Training is $671.10. This amount if applied to the college expenses will reduce the four-year cost of a South Carolina cadet to $2,599.90 or an average yearly cost of $649.98. For an out-of-state cadet the four-year cost would be reduced to $3,279.90 or an average yearly cost of $819.98.

A summary of these estimates is as follows:

	S. C. Cadets	*Out-of-State Cadets*
Estimated Costs:		
Freshman Year	$ 984.00	$1,154.00
Sophomore Year	769.00	939.00
Junior Year	759.00	929.00
Senior Year	759.00	929.00
Total Estimated Cost	$3,271.00	$3,951.00
Estimated R.O.T.C. Allowance:		
Uniform Commutation	$ 150.00	$ 150.00
Subsistence	521.10	521.10
Total Estimated R.O.T.C. Allowance	$ 671.10	$ 671.10
Net Estimated Cost for Four Years	$2,599.90	$3,279.90
Average Yearly Cost	$ 649.98	$ 819.98

Additional Information

Unsatisfactory Accounts. — When a cadet's account is in an unsatisfactory condition, no honorable discharge will be made, no diploma will be awarded, and no transcript of credits will be provided until a satisfactory settlement of the account has been made.

Pocket Money. — The college does not handle pocket money accounts. All allowances for pocket money should be sent directly to the cadet. No estimate is made of this requirement, for the amount varies among

the cadets and can best be determined by the cadet and parents. Dry cleaning and laundering of the white uniform coat must be paid for out of the cadet's pocket money.

If the cadet receives a substantial allowance for his personal needs, he may deposit it with the College Hostess, who runs a depository for the accommodation of the cadets, or it may be deposited in a special checking account with a local bank.

Clothing and Bedding

All cadets are required to furnish their own bed clothes. Beds and mattresses are provided by the college, but pillows are not. Two mattress covers will be issued at cost to each cadet. Cadets should come provided with the following articles:

Three white shirts (with collar attached)
Three pajamas
One bathrobe
Ten suits of underwear
Twelve pairs of black socks
Twelve handkerchiefs
One pair bedroom slippers
Two pairs black shoes (with rubber heels)
Six towels
One pillow
Three pillow cases
Four sheets for single bed
Three blankets
Twelve coat hangers
Two large laundry bags
Toilet articles

One pair of white shoes with rubber heels and plain toes will be required at the beginning of the spring quarter.

Before the opening of the session, a new cadet is assigned a laundry number, which he retains as long as he remains at The Citadel. Clothing should be marked with the name and full initials, as well as with laundry number, as follows: Sheets, towels, and handkerchiefs, in the corner; pillow cases, in the corner at open end; collars, on inside near center; shirts, on bands at back of neck; socks, on leg near top; other articles, where most practicable.

Accommodations for Cadets During Holidays

Cadets who cannot go to their homes during the Christmas and Easter holidays may remain on the campus and occupy the visiting teams' dormitory. The barracks and the dining hall will be closed during vacations.

Employment

The time of a cadet at The Citadel is very largely taken up with

his duties; hence there is no opportunity for employment either within the college or outside for the purpose of financial assistance.

Hospital

The hospital facilities at The Citadel are excellent, and all ordinary cases of sickness are treated by the surgeon and nurses of the college without expense to the parent. Surgical cases requiring the removal of a cadet to an infirmary in the city, services of a special nurse in the college hospital, and special treatment of eyes, ears, teeth, etc., must be at the expense of the parents or guardian.

SUMMER SESSION

A summer session is conducted for students who wish to accelerate their work or make up conditions.

State appropriations are limited to the nine months term. The summer session must be self-supporting, and the same fees must be charged to both state and out-of-state students. Tuition fees are based on the number of credit hours taken by the student. Fees for the summer term are as follows:

Registration fee	$ 2.00
Tuition ($6.00 per credit hour)	
Maintenance Fee	5.00
Hospital Fee	5.00
Deposit for books	15.00
Activities Fee	5.50
Library Fee	2.00

SCHOLARSHIPS AND HONORS

Charleston City Scholarships

There are six scholarships maintained by the City of Charleston. Each of these is worth $250.00 a year. Appointments are made by the Committee on Ways and Means of the City Council on the basis of competitive examinations. Applicants must be residents of the City of Charleston.

Other Scholarships

The William States Lee Scholarship. — The income from $6,000.00 in bonds; founded in 1925 by the late William States Lee of Charlotte, N. C.

The James R. Crouch Scholarship. — The income from $5,000.00 in bonds; founded in 1925 by the late James R. Crouch of Greenville, S. C.

The First Field Artillery Brigade, A. E. F., Scholarship. — Covering all expenses at The Citadel for four years; established in 1934 by Colonel Robert R. McCormick of Chicago, Ill. Limited to candidates from the State of Illinois. Qualifications:

1. Financial need.
2. Superior scholastic record.
3. General worth and personality as indicated by qualities of manhood, truth, courage, devotion to duty, and unselfishness.
4. Exhibition of moral force of character and qualities of leadership.
5. Physical vigor as shown by participation in manly sports.

The Fifth Field Artillery Scholarship. — Covering all expenses at The Citadel for four years; established in 1934 by Colonel Robert R. McCormick of Chicago, Ill. Limited to candidates from the State of Illinois. The qualifications are the same as for the First Field Artillery Brigade Scholarship.

Baruch Scholarships. — Two scholarships with a value of $250.00 each have been inaugurated from the income of a fund donated to The Citadel by Mr. Bernard Baruch.

Star of the West Scholarship. — This scholarship covering all college expenses is supported by the income from an anonymous Trust Fund. Awarded for the first time in 1952. The next vacancy is expected in 1956. The scholarship is available only to students of outstanding ability and attainment without reference to financial need.

Bond Scholarship. — Supported by the income from a Trust Fund established by alumni as a memorial to the late Colonel Oliver J. Bond. Present value $150.00 per annum for four years. First awarded in 1953. The next vacancy is expected in 1957.

Honors and Awards

The Scholarship Medal — presented annually by the Board of Visitors to the cadet graduating at the head of his class.

General High Honors — awarded to those cadets of the graduating class whose academic standing in each of the four college years does not fall below a grade point ratio of 2.67.

General Honors. — awarded to those cadets of the graduating class who have maintained a grade point ratio of 2.50 to 2.66 during the four college years.

Departmental Honors. — awarded on recommendation of heads of departments to those cadets of the graduating class who have established a grade point ratio of 2.50 or better in at least 54 quarter hours of work in a department, including all departmental work in the junior and senior years.

The Gold Star. — awarded to those cadets who have made a grade point ratio of not less than 2.67 in the work of a quarter. The star is worn on the collar of the uniform during the next quarter.

R.O.T.C. Distinguished Military Student Program — Students whose proficiency in Military Training and whose qualities of leadership and attention to duty have merited the approbation of the Professor of Military Science and Tactics are designated Distinguished Military Students. Upon graduation Distinguished Military Students are designated Distinguished Military Graduates. Distinguished Military Students are eligible to apply for appointment as Second Lieutenant in the Regular Army when they have registered for their last academic year. Application may be submitted at any time within six months subsequent to graduation.

The John O. Willson Ring — the bequest of Dr. John O. Willson; given annually to the member of the first class voted by his classmates the manliest, purest, and most courteous member of his class.

The Algernon Sydney Sullivan Awards — bronze medallions presented by the college, through the benefaction of the New York Southern Society, to students or others in recognition of high thought and noble endeavor; established by that society in 1925, the awards have been made at The Citadel since 1933.

The Star of the West Medal — originally presented to The Citadel by Dr. B. H. Teague; awarded annually for one year to the best drilled cadet.

The W. C. White Medal — presented annually by Mrs. W. C. White to the captain of the best drilled company.

The Commandant's Cup — presented to The Citadel by the late Lieutenant Colonel W. C. Miller; awarded annually for one year to the best drilled company.

The competitions for the Star of the West Medal, the W. C. White Medal, and the Commandant's Cup are held as part of the annual commencement exercises.

The 103rd Field Artillery Award — established by the veteran organization of that regiment as a trophy to be won each year by the company of cadets which has attained the best record in discipline.

The European Citadel Association Award — A handsome silver cup awarded annually for one year to the company of cadets which makes the greatest improvement in scholastic work during the college year.

The Carlisle Norwood Hastie Award — Awarded to a member of the graduating class whom his classmates elect as having shown the most tact, consideration, and courtesy to his fellow students.

The Wade Hampton Saber — awarded annually by the South Carolina Division, U. D. C., to the member of the first class who has attained the highest standing in Military Science and Tactics.

The Charleston Chapter of the Reserve Officers' Association Saber — awarded annually by The Charleston Chapter of the Reserve Officers' Association to that member of the first class who has shown the most improvement in leadership and discipline during his senior year.

The Washington Light Infantry Marksmanship Trophy and Medals — a trophy awarded annually for one year to the organization whose team makes the highest score in small-bore rifle marksmanship; silver medals awarded to the members of the winning team; and a gold medal to the cadet making the highest individual score; all presented by the Washington Light Infantry.

Robert O. Purdy Award — An award of $100.00 given annually to the member of the graduating class in the Artillery who has made the best record in academic studies and in military achievement during his four years as a cadet. Named in honor of Robert O. Purdy of Sumter, S. C. who gave his life as a member of the First Division, A.E.F., in World War I.

The Francis Marion Cup — awarded by the Rebecca Motte Chapter, D.A.R., to a cadet of the June graduating class for outstanding achievement in American History.

The Anti-Aircraft Artillery Association Medal — awarded by the Anti-Aircraft Artillery Association to the outstanding Artillery R.O.T.C. enrollee of the second class.

The United States Army Infantry Medal. Donated by the Combat Forces Journal and awarded annually to the outstanding Second Class Cadet in the Infantry R.O.T.C. Unit.

The American Ordnance Association Medal. Donated by the American Ordnance Association and awarded annually to the outstanding Second Class Cadet in the Ordnance R.O.T.C. Unit.

The Society of American Military Engineers presents medals each year to both the outstanding senior and outstanding junior of the Corps of Engineers R.O.T.C.

The Air Force Association Medal — presented each year to the outstanding Advanced Air Force R.O.T.C. cadet upon the recommendation of the PAS&T.

The Armed Forces Chemical Association Award — awarded annually within the A.F.R.O.T.C. program to the outstanding student for achievements and scholastic attainments in the field of Air Science and Chemical Warfare studies.

GENERAL INFORMATION

Educational Standing

The Citadel is a fully accredited senior college. It is a member of the Southern Association of Colleges and Secondary Schools and is on the approved list of the Association of American Universities.

The Civil Engineering Department is accredited by the Engineers' Council for Professional Development.

System of Management

The Citadel is essentially a military college. Leadership, initiative, and character are developed by placing upon cadets the great responsibility of controlling all units in the military organization.

All cadets live in barracks. From reveille to taps, every hour of the cadet's time is accounted for. The regular habits of study and living thus formed, the attention to duty, obedience to authority, and love for order inculcated are considered among the most valuable features of the military education. While few of the graduates enter the military profession, hundreds in all walks of civil life attest to the high value of the training received at the institution.

The daily routine is regulated by the "Cadet Regulations", generally known as the "Blue Book." A copy of this manual will be furnished to parents or guardians upon request.

Reserve Officers' Training Corps

The Citadel is justly proud of the record of its R.O.T.C. For more than thirteen years it has had the highest rating by the Department of Defense.

The course of study in R.O.T.C. is that prescribed by the Department of Defense.

Insofar as possible new students will be placed in the service of their choice. However, we are bound by rigid percentage enrollment quotas. These quotas have been established by the Departments of the Army and the Air Force based on the needs of each service and have been sub-allotted to the various officer producing institutions. Therefore, no definite assurance can be given that a student will be granted his first choice of service or branch.

U. S. Military and Naval Academies

Since The Citadel is not a preparatory school, it has no courses specifically designed to prepare students to enter the national military and naval schools at West Point and Annapolis. The regulations for admission to these institutions provide for the acceptance of work done in certain accredited colleges, of which The Citadel is one, in lieu of the usual mental examination. Many Citadel cadets have entered both West Point and Annapolis by certificate under these regulations.

Cadets who are planning to enter the United States Naval Academy are advised to substitute physics for chemistry in their freshman year at The Citadel.

Physical Examination

A thorough physical examination is required of all applicants for admission. Forms for reporting the results of the examination are supplied by the Office of the Registrar and when completed should be mailed to the Registrar.

Furloughs

A suspension of work for ten days, including Christmas Day and New Year's Day, is required by law.

The Corps of Cadets is furloughed from the end of the spring quarter until the opening of college in September.

By applying for permission for their sons' entry to The Citadel, parents voluntarily relinquish control over them to the authorities of the college, and it is expected that they will not ask for furloughs for their sons except in extreme cases. In every case the reason for furlough should be stated and the decision left to The Citadel authorities whether the circumstances warrant the approval of the application. This must be done before furloughs will be approved.

It is not the policy of The Citadel to grant discharges between the completion of examinations and the Commencement exercises or the beginning of a furlough. Cadets may withdraw at such times only by order of the Chairman of the Board of Visitors or the President.

The following paragraphs are sections from the handbook "Cadet Regulations":

25.04. Special Leave. a. Special leave may be granted upon the request of the parent or guardian in the event of the marriage of a member of the cadet's immediate family, or a golden wedding anniversary in the cadet's family. The immediate family includes parents,

grandparents, brothers, sisters and the permanent resident members of the family.

b. Special leave may be granted under exceptional circumstances clearly stated by the parent showing the necessity for such leave. In all cases the final decision must rest with the authorities of the college.

25.05. EMERGENCY LEAVE. An emergency leave for five (5) days subject to extension, if necessary, will be granted to a cadet upon the receipt by the Commandant of Cadets or the Officer in Charge of a letter or telegram containing news of the death or critical illness of a member of the cadet's immediate family. If any other emergency arises in a cadet's home requiring the cadet's presence, the facts should be set forth clearly by the parent or guardian in a written communication making request for leave. Decision as to whether or not leave will be granted must be left to the authorities of the college. In cases of emergency the cadet need not make application for leave. A special order for emergency leave will be issued upon the request of the parent or guardian only, and the cadet will be released to take the first available transportation to his home.

Military training is continuous from day to day and the Military grade awarded a cadet is a combination of his practical and theoretical work. Since there is no way for a cadet to make up practical work which he has missed, it is necessary to make deductions from his Military grade for any days of training missed because of leaves of absence.

40.07. MEDICAL SERVICE. Except in emergency occurring on leave and requiring immediate medical attention, a cadet will not arrange for or receive professional treatment from doctors or specialists without permission from the Surgeon. Applications for any special leaves required for such treatment will be submitted to the Commandant and referred to the Surgeon.

40.08. SPECIAL MEDICAL AND DENTAL SERVICES. Dental work, special examination of eyes, etc., should be looked after during the summer or the Christmas furlough. Leaves should not be requested for this purpose. In cases of emergency there are competent specialists and ample facilities in Charleston for taking care of any needs of cadets. In matters of health, the regular Surgeon of the college will advise the proper course to be taken. In case the services of local dentist, oculist or other specialist are deemed necessary, the request therefor will be submitted to the Commandant of Cadets and by him referred to the Surgeon, who, if he approves the request, will make all necessary appointments for the cadets, and return the application to the Commandant for final action.

Hazing

The practice of hazing is becoming less and less common in our colleges. It is a practice which should be totally abolished, because, if countenanced at all, it almost invariably is carried to excess by a few irresponsible students.

At The Citadel, where all the cadets live together in barracks, the presence of individuals who are obsessed with the idea that beatings and indignities are a part of a student's education cannot be tolerated; and no student is wanted in the corps who does not subscribe voluntarily to the regulations which absolutely bar hazing from the corps.

The regulations concerning hazing are contained in the following resolutions of the Board of Visitors:

Whereas, The Statutes of the State make it unlawful for any student to engage in hazing (XXVIII, Statutes at Large, page 619), and

Whereas, This Act requires the governing board of all colleges supported in whole or in part by the State to formulate and issue such regulations as may be necessary to enforce this law,

Therefore, be it resolved, That the Board of Visitors of The Citadel, in compliance with the law cited, hereby adopts the following regulations:

1. Every cadet will be required to subscribe to the following promise:
I (Name of cadet) hereby promise that I will not engage in hazing in any form during my connection with The Citadel.

(Signature of Cadet)

2. In any apparent case of hazing, where the facts do not come directly under the observation of the authorities, the Commandant of Cadets will require each cadet in the corps to make a statement whether he was involved in the case, and if so, the facts relating to his connection therewith. In every case where a cadet is guilty of hazing, he shall immediately withdraw from The Citadel, and the facts in the case together with the statement of the cadet will be forwarded to the Board of Visitors.

3. The acceptance of these regulations by the parents or guardian of each cadet and also by the cadet himself will be required before such cadet will be admitted to the college.

4. Hazing is defined to be striking, laying hands upon, treating with violence, or offering bodily harm to a cadet who has been connected with the college for less than one year, or other treatment of a harass-

ing, tyrannical, abusive, insulting, or humiliating nature, or that may endanger the physical well-being of such cadets.

Requiring a fourth classman to perform any personal service whatever for a member of the higher classes constitutes hazing.

Customs and Courtesies

Customs and Courtesies, a twenty-nine-page booklet published at The Citadel, is designed to provide cadets with a compact manual of good deportment. This manual is used as the textbook in a course in deportment given by the Department of Military Science and Tactics.

After explaining clearly the value of a knowledge of the correct way of conducting oneself in social contacts the booklet presents detailed information on such matters as personal appearance and dress, correct speech, table manners, introductions, calling cards, calling, social correspondence, overnight visits, and punctuality.

The practical value of the booklet is evidenced by the fact that many persons not connected with the college have requested copies.

Religious Influences

The Citadel is non-sectarian, but its high objectives cannot be achieved unless its educational program is founded on a solid religious life. Divorced from the spiritual aspirations of the individual and of the group, education is likely to destroy greater values than it creates. The basic purpose of education is to integrate its curricula with character-building activities and a normal religious life to the end that young people may be not only more efficient but better motivated by a sense of duty and obligation. Thus, in an atmosphere of tolerance and mutual respect, every cadet is encouraged to maintain his ties with the religious group to which he belongs, and the college attempts to provide the means by which such association may be made most fruitful.

It is significant that the college in planning its present building program thought first of a cadet chapel which in size, dignity, and beauty would be a fitting reminder to all cadets that education must be founded upon spiritual strength. This great building, always accessible, imposing and churchly, is dedicated to no denomination or creed, but is a shrine of religion, of patriotism, and of remembrance in which any group of good will and seemly purpose may hold services and feel at home in doing so.

Within its walls ministers of many denominations take turns in conducting the regular nine o'clock service held every Sunday morning,

which is attended by all cadets except Roman Catholics and Jews. Early every Sunday morning there is a low celebration of the Holy Communion for Episcopalians, followed by a low mass for Roman Catholics. At regular intervals—monthly, bi-monthly. or quarterly, as is usual with the denomination—communion services are held for each of several Protestant groups directly following the nine o'clock service. Jews attend religious instruction under a local rabbi in a room set aside for the purpose in the Cadet Activities Building. The local Episcopal, Methodist, and Roman Catholic bishops provide chaplains for cadets of their communions, and leading ministers of other sects act as spiritual advisers to cadets of their groups.

Special services are held for Episcopalians on Ash Wednesday and Good Friday, and special early masses on holy days of obligation for Roman Catholics. During the Advent season, and shortly before the beginning of the Christmas furlough, a great carol service is held, participated in by representatives of Charleston choirs and by Anglican, Protestant, and Roman Catholic clergymen. Annually, parallel religious emphasis week programs are conducted under three auspices—those of the Y.M.C.A. for Protestant cadets, the Newman Club for Roman Catholics, and the Jewish Club for members of that faith. These programs, led by outstanding speakers, are intended to bring into clearer relief a sense of the dignity and manliness of the religious life.

In all of the services thus conducted and in the other influences which the college brings to bear on its cadets, it is sought to avoid the casual and the perfunctory. Cadets are encouraged to regard contacts with their churches as vital to their education and development, and the act of worship as a deeply significant experience that should be accompanied by dignity, reverence, and gratitude. Thus, on Sunday mornings one may view the impressive ceremony of battalions of cadets, each marching from its respective barracks across the drill field and converging on the chapel, and will sense no evidence of mere routine in their attitude. On the contrary, in this reassuring spectacle and in the service that follows, there is a fine manifestation of respect and reverence for this hour as the most sigificant of the entire week. The college realizes that these services, and the underlying religious life of which the are the outward manifestation, must be more than a mere gesture. Otherwise young men will find, as their intellectual horizons widen and they come into possession of the uncertain techniques of lay learning, that there is a temptation to abandon religious teaching as guide and to substitute "reason" for faith as the ultimate guide. From this peril education must protect itself by constantly reminding young people that education builds and enriches life not by abandoning religious faith as outmoded, but by accepting it as the source of truth and understanding.

The inscription on the front of the chapel is "Remember now thy Creator in the days of thy youth."

Religious Groups

For Episcopal cadets there is a student parish, "St. Alban's at The Citadel," for Roman Catholic cadets the the Citadel Newman Club, and for each other group an appropriate club; these meet on Monday evenings for instruction by the chaplain or spiritual adviser, and to plan social functions in co-operation with civilian young people's groups of similar churches in Charleston. At the 9 o'clock general service Sunday mornings there is a de-emphasis on doctrine; on Monday evenings doctrinal training is paramount, so that cadets may leave The Citadel stronger in their faith than before they entered.

Y. M. C. A.

The Citadel Y. M. C. A., organized in 1886, is an important part of the religious and social life of the cadets. The work is supervised by a student committee, a cabinet, and a full-time executive secretary.

Services of a leader in the field of religious education are engaged for a week during the college year, which is known as Religious Emphasis Week. Daily meetings are held and an opportunity is afforded the cadets for personal conferences with the leader.

To the Association are also entrusted the upkeep of recreation rooms, the maintenance of telephone service, and the publication of a handbook.

A sub-station of the United States Post Office is operated at The Citadel under the direction of the Y. M. C. A. Secretary.

Clubs and Fraternities

It is not considered in keeping with the democratic ideals of The Citadel to encourage the formation of exclusive societies or fraternities, membership in which is based on other requirements than individual worth and achievement. When new cadets report to the college, all are at once put in uniform and, as far as possible, all artificial distinctions based on wealth, position, or influence are minimized and the cadet encouraged to achieve his place by individual merit. All cadets live under practically identical conditions and all are rated by the same standards, but there is a wide range of opportunity for each to develop in accordance with his needs and aptitudes. Elsewhere in this booklet are described the various clubs, organizations, and activities that are open to all cadets.

INTERIOR OF CADET CHAPEL

Music

In addition to The Citadel band, which constitutes one of the drill and administrative units into which the corps of cadets is organized, the college affords several excellent ways in which cadets may develop their musical interests.

Through the Carnegie Corporation the college has acquired a very valuable music set consisting of an electric phonograph, nearly seven hundred records, and various books dealing with musicians and musical appreciation.

The cadet orchestra, the "Bull Dogs", plays for the informal dances and at other campus functions. The cadet choir, the music club, and the glee club are also important parts of college life.

Library

The college library is located on the third floor of Bond Hall in a position of maximum accessibility to all academic departments. The library space, now ample to take care of over twenty per cent of the normal student body, was approximately doubled at the beginning of the academic year 1939-40 by the addition of a large, handsomely finished and equipped reading room covering the entire third floor of the new extension to Bond Hall. This room has a gallery running around three sides. The main floor and the alcoves are equipped with special library tables and I. E. S. lamps. The entire room is most attractively appointed and admirably suited to its purpose.

The original reading room, stack rooms, and offices of the old library are immediately adjacent to the new and connected with it by corridor.

The collection of books now contains approximately 57,000 volumes and is being increased at the rate of over 3,000 volumes per annum. Important additions have been made possible by gifts from friends of the college.

In addition to the general collection there are separate departmental libraries housed in the departments of Chemistry, Physics, and Civil Engineering. All of these volumes are listed in the catalogue of the college library.

The reading rooms are well supplied with catalogues and indexes, current magazines and newspapers, technical and scientific journals, and literary and critical reviews.

Placement Committee

A faculty-staff group known as the Placement Committee assists graduates and members of graduating classes to secure positions. No charge is made for this service, but registration with the committee and submission of necessary data for preparation of case histories are prerequisites for this aid.

Summer Session

The summer term of ten weeks affords an opportunity to students, both cadets and veterans, to shorten the time required for graduation and also gives students an opportunity to acquire quality points. In general, the courses provided are a continuation of the courses offered during the regular session, and the student who attends the ten-week summer term can gain a full quarter's credit.

For expenses see itemized list of fees on page 37 of this catalogue.

VETERANS

Opportunities at The Citadel

It is the desire of The Citadel to co-operate helpfully with veterans to assure them the maximum educational benefits guaranteed them by Public Law No. 500. All of the services and facilities of the college will be open on the same basis as for other students.

Veterans may enroll either with the status of cadets or as civilian students. Those who wish to qualify for a reserve commission upon graduation must enroll as cadets and complete the advanced course of the Senior Division R.O.T.C. Army Regulations provide that veterans with service of twelve months or more are entitled to credit for the basic course, Senior Division R.O.T.C.

To be eligible for enrolment as a cadet a veteran must be physically fit, unmarried, and under twenty-six years of age.

Only veterans enrolled as cadets may occupy rooms on the campus. For the cost of room and board see the summary of expenses on page 35.

DEPARTMENTS OF INSTRUCTION

The Objectives of The Citadel

The objectives of The Military College of South Carolina are to offer such courses in the liberal arts and sciences as will develop the mind and character of the student, increase his likelihood of success in any useful pursuit, and fit him to discharge the duties of citizenship; to give to students who so desire professional training in Civil Engineering, Electrical Engineering, and Business Administration; to see that its graduates are adequately equipped in their respective fields of concentration to enter in full standing post-graduate, professional, or technical schools; and to qualify them for commissions in the Officers' Reserve Corps of the Armed Forces.

Courses

The course of study is essentially the same for all freshmen. Certain subjects are required in the sophomore year of all students, the remaining subjects being determined by the course which the student is to follow during his junior and senior years. Major work is offered in the following departments: Business Administration, Chemistry, Civil Engineering, Electrical Engineering, English, History, Mathematics, Modern Languages, Physics, and Political Science. Thorough pre-medical and pre-dental courses are available and also a course in physical education.

A statement of the courses required each year in each department and a detailed description of the various courses will be found in the pages immediately following.

Grades

A, B, C and D are passing grades. F represents failure. I represents work of a satisfactory character incomplete for acceptable reasons.

For determining class standing and graduation a quality point system is employed. Grades in this connection have the following values: "A" carries three points for each quarter hour credit; "B", two points; "C" one point; "D", no quality points.

Reports on the standing of cadets are mailed to parents or guardians at the end of each quarter.

Changes in schedule must be effected during the first ten days of the quarter. A subject dropped after the first ten days have passed will receive a grade of F.

Promotion

No student will be promoted from the fourth to the third class who has a grade of F in more than one subject.

For advancement from the third to the second class a student must have a grade point ratio of 0.70 or better in the courses of the fourth and third classes combined. The grade point ratio is determined by dividing the total number of quality points by the number of credits earned.

For promotion to the first class a student must be able to graduate within three quarters from date of promotion.

During any regular college year a student must achieve at least twenty-seven quarter-hour credits to maintain enrolment privilege. Any cadet who fails to achieve at least twenty-seven quarter-hour credits during the nine months session, or who shall fail the same course three times shall be reported to the Academic Board for action as to his continuance in college.

N.B.—There is so wide a degree of variation in the preparation and abilities of students when they enter college that inevitably not all will be able to complete The Citadel's requirements for graduation in four years. In every worthy case, parents are urged to accept the necessity of their son's returning to college for an additional year without any sense of stigma.

Requirements for Graduation

For graduation it is required that one of the programs of study as outlined on pages 55 to 67 be completed with an accumulated grade point ratio of 0.80 or more. In no case shall the minimum of total quarter credit hours be less than 210 nor the period of attendance at the college less than two years.

Every cadet is required to complete a course in the Constitution of the United States or the course in Government as given in the sophomore year. Exception is made in the case of cadets who present credit for a study of the Federal Constitution in high school.

It is also a requisite for graduation that every senior prepare a *Senior Essay* on a subject chosen from his field of concentration. This subject will be selected in consultation with the department head concerned prior to the end of the first quarter. This essay is designed as an exercise in the preparation of a formal research paper, measuring up to commonly accepted professional standards, and is wholly apart from the requirements of a particular course in the curriculum.

In addition to the formal credits required for graduation, the candidate must have demonstrated that he is of high character and worthy to receive the diploma of the college. Recommendations for graduation are made by the Academic Board to the Board of Visitors, who in turn award the diplomas.

Degrees

The degree of Bachelor of Arts is conferred upon satisfactory completion of the English, History, Modern Language, Political Science, and classical programs of study. The degree of Bachelor of Science is conferred upon satisfactory completion of the Chemistry, Mathematics, Physics, Physical Education, and Pre-Medical programs.

The degree of Bachelor of Science in Commerce is awarded to students who complete satisfactorily the course in Business Administration.

Graduates in Civil Engineering receive the degree of Bachelor of Science in Civil Engineering. Graduates in Electrical Engineering receive the degree of Bachelor of Science in Electrical Engineering.

The degree of Civil Engineer is conferred as a professional degree upon graduates in Civil Engineering after at least three years of responsible work in their profession and the submission of a satisfactory thesis on some engineering subject.

Classification of Cadets

The cadets are arranged in four distinct classes, corresponding with the four years of study. Cadets pursuing the first year's course constitute the Fourth or Freshman Class; those taking the second year's course, the Third or Sophomore Class, those in the third year's course, the Second or Junior Class; and those in the fourth year's course, the First or Senior Class.

Courses of Study

In the following pages will be found a detailed schedule of the curriculum required for each degree according to the major subject elected. The clock hours and the credit value of each course are noted. The individual courses are described under the appropriate departmental heading in the pages following the schedules.

The Biology and Geology courses are given in the Department of Chemistry; the Drawing, in the Department of Civil Engineering; the Psychology, Philosophy, and Classical Languages, in the Department of Education.

The courses of the fourth class are numbered from 101 upward, of the third class from 201 upward, of the second class from 301 upward, and of the first class from 401 upward. The letters a, b, c after the course number indicate the quarter in which the course is given, a being for the first quarter, b for the second, and c for the third. Courses that run through the year are listed by number only.

BUSINESS ADMINISTRATION MAJOR

Subject	Courses	No. of Weeks	Clock Hrs. per week Rec.	Lab.	Qr. Hrs. Credits	Total
FOURTH CLASS						
Freshman Mathematics	Math. 102	36	3	0	9	
Composition and Literature	Engl. 101 (102)	36	3	0	9	
Survey of American History	Hist. 102	36	3	0	9	
General Inorganic Chemistry	Chem. 102	36	2	2	9	
A Modern Language		36	3	0	9	
1st Year Basic R.O.T C.	Mil. Sc. 101	36	2	4	6	51
THIRD CLASS						
Survey of English Literature	Engl. 201	36	3	0	9	
Introduction to College Physics	Phys. 202	36	3	2	12	
Preface to Economics	B. Ad. 200	12	3	0	3	
Economic Principles	B. Ad. 201	12	3	0	3	
Economic Principles and Problems	B. Ad. 202	12	3	0	3	
Raw Material Wealth	B. Ad. 203	12	5	0	5	
Business Psychology	B. Ad. 204	12	5	0	5	
Business Statistics	B. Ad. 206	12	5	0	5	
*A Modern Language		36	3	0	9	
2nd Year Basic R.O.T.C.	Mil. Sc. 201	36	2	4	6	60
SECOND CLASS						
Accounting Principles	B. Ad. 303	12	3	3	4½	
Accounting Practice	B. Ad. 304	12	3	3	4½	
Business Law	B. Ad. 305	12	5	0	5	
Business Organization	B. Ad. 306	12	5	0	5	
Principles of Labor	B. Ad. 307	12	5	0	5	
General Insurance	B. Ad. 308	12	5	0	5	
Marketing	B. Ad. 309	12	5	0	5	
Foreign Trade	B. Ad. 310	12	5	0	5	
Government Finance	B. Ad. 311	12	5	0	5	
Taxation	B. Ad. 312	12	5	0	5	
1st Year Adv. R.O.T.C.	Mil. Sc. 301	36	4	4	9	58
FIRST CLASS						
Adv. Accounting Theory and Practice	B. Ad. 401	12	3	3	4½	
Advanced Accounting Problems	B. Ad. 402	12	3	3	4½	
Corporation Finance	B. Ad. 403	12	5	0	5	
Investments	B. Ad. 404	12	5	0	5	
Sales Administration	B. Ad. 405	12	5	0	5	
Transportation	B. Ad. 406	12	5	0	5	

*Students who have completed the Modern Language requirements in the Fourth Class will take an elective in place of Modern Language in the Third Class.

Subject	Courses	No. of Weeks	Clock Hrs. per week Rec.	Lab.	Qr. Hrs. Credits	Total
Money	B. Ad. 407	12	5	0	5	
Banking	B. Ad. 408	12	5	0	5	
Production	B. Ad. 409	12	5	0	5	
Personnel Management	B. Ad. 410	12	5	0	5	
Senior Essay	B. Ad. 425	24	0	3	3	
2nd Year Adv. R.O.T.C.	Mil. Sc. 401	36	4	4	9	61
			Total			230

CHEMISTRY MAJOR

FOURTH CLASS						
College Algebra	Math. 111a	12	5	0	5	
Trigonometry	Math. 112b	12	5	0	5	
Analytic Geometry	Math. 113c	12	5	0	5	
Composition and Literature	Engl. 101 (102)	36	3	0	9	
Survey of American History	Hist. 102	36	3	0	9	
General Inorganic Chemistry	Chem. 101	36	3	2	12	
1st Year Basic R.O.T.C.	Mil. Sc. 101	36	2	4	6	51
THIRD CLASS						
Survey of English Literature	Engl. 201	36	3	0	9	
Introduction to College Physics	Phys. 201	36	3	2	12	
Chemical Analysis, Qualitative	Chem. 201	36	2	3	9	
Calculus	Math. 201	36	5	0	15	
Elementary German	Ger. 101	36	3	0	9	
2nd Year Basic R.O.T.C.	Mil. Sc. 201	36	2	4	6	60
SECOND CLASS						
Volumetric Chemical Analysis	Chem. 301ab	24	2	4	8	
Gravimetric Chemical Analysis	Chem. 301c	12	2	4	4	
Organic Chemistry	Chem. 303	36	3	3	12	
Scientific German	Ger. 201	36	3	0	9	
Electives (two)		36	3	0	18	
1st Year Adv. R.O.T.C.	Mil. Sc. 301	36	4	4	9	60
FIRST CLASS						
Chemistry — Physical	Chem. 401	36	3	3	12	
Chemistry — Organic Preparations	Chem. 403a	12	1	4	3	
Chemistry — Adv. Topics in Organic	Chem. 404bc	24	3	0	6	
Chemistry — Advanced Quantitative	Chem. 407ab	24	2	4	8	
Chemistry — Qualitative Organic	Chem. 408c	12	2	4	4	
Elective		36	3	0	9	
Senior Essay	Chem. 425	24	0	3	3	
2nd Year Adv. R.O.T.C.	Mil. Sc. 401	36	4	4	9	54
			Total			225

CIVIL ENGINEERING

Subject	Courses	No. of Weeks	Clock Hrs. per week Rec.	Lab.	Qr. Hrs. Credits	Total
FOURTH CLASS						
College Algebra	Math. 111a	12	5	0	5	
Trigonometry	Math. 112b	12	5	0	5	
Analytic Geometry	Math. 113c	12	5	0	5	
Composition and Literature	Engl. 101 (102)	36	3	0	9	
General Inorganic Chemistry	Chem. 101	36	3	2	12	
Engineering Drawing	C. E. 101	36	1	3	9	
1st Year Basic R.O.T.C.	Mil Sc. 101	36	2	4	6	51
THIRD CLASS						
Survey of English Literature	Engl. 201	36	3	0	9	
Introduction to College Physics	Phys. 201	36	3	2	12	
Calculus	Math. 201	36	5	0	15	
Surveying	C. E. 205	36	3	2	12	
Engineering Drawing	C. E. 203	36	0	4	6	
Descriptive Geometry	C. E. 201a	12	0	2	1	
Graphic Statics	C. E. 202bc	24	0	2	2	
2nd Year Basic R.O.T.C.	Mil. Sc. 201	36	2	4	6	63
SECOND CLASS						
Solid Analytic Geom. and Calculus	Math. 301a	12	3	0	3	
Differential Equations	Math. 302bc	24	3	0	6	
or						
Survey of American History	Hist. 102	36	3	0	9	
Analytic Mechanics	C. E. 301	36	3	0	9	
Highway Engineering	C. E. 305	36	3	0	9	
Engineering Law and Specifications	C. E. 309	36	3	0	9	
Engineering Geology	Geol. 303a	12	3	2	4	
Mechanics of Materials	C. E. 303bc	24	3	0	6	
Materials Laboratory	C. E. 307ab	24	0	4	4	
Stress Analysis	C. E. 308c	12	2	2	3	
1st Year Adv. R.O.T.C.	Mil. Sc. 301	36	4	4	9	62
FIRST CLASS						
Reinforced Concrete	C. E. 403	36	3	0	9	
Structural Steel	C. E. 405	36	2	3	10½	
Electrical Engineering	E. E. 411	36	2	2	9	
Hydraulics	C. E. 407ab	24	3	0	6	
Hydraulics Laboratory	C. E. 408c	12	0	2	1	
Concrete Laboratory	C. E. 401a	12	0	4	2	
Soil Mechanics and Foundations	C. E. 401bc	24	3	0	6	
Water Supply and Sewerage	C. E. 409ab	24	3	0	6	
Soils Laboratory	C. E. 401c	12	0	4	2	
Senior Essay	C. E. 425	24	0	3	3	
2nd Year Adv. R.O.T.C.	Mil. Sc. 401	36	4	4	9	63½
				Total		239½

ELECTRICAL ENGINEERING MAJOR

Subject	Courses	No. of Weeks	Clock Hrs. per week Rec.	Lab.	Qr. Hrs. Credits	Total
FOURTH CLASS						
College Algebra	Math. 111a	12	5	0	5	
Trigonometry	Math. 112b	12	5	0	5	
Analytic Geometry	Math. 113c	12	5	0	5	
Composition and Literature	Engl. 101 (102)	36	3	0	9	
General Inorganic Chemistry	Chem. 101	36	3	2	12	
Engineering Drawing	C. E. 101	36	1	3	9	
1st Year Basic R.O.T.C.	Mil. Sc. 101	36	2	4	6	51
THIRD CLASS						
Survey of English Literature	Engl. 201	36	3	0	9	
Introduction to College Physics	Phys 201	36	3	2	12	
Calculus	Math. 201	36	5	0	15	
Surveying	C. E. 205	36	3	2	12	
Descriptive Geometry	C. E. 201a	12	0	2	1	
Graphic Statics	C. E. 201bc	24	0	2	2	
Engineering Drawing	C. E. 203ab	24	0	4	4	
2nd Year Basic R.O.T.C.	Mil. Sc. 201	36	2	4	6	61
SECOND CLASS						
Solid Analytic Geometry and Intermediate Calculus	Math. 301a	12	3	0	3	
Differential Equations	Math. 302bc	24	3	0	6	
Survey of American History	Hist. 102	36	3	0	9	
Advanced General Physics	Phys. 301	36	5	0	15	
D. C. Circuits and Machines	E. E. 301	18	5	0	7½	
A. C. Circuits and Machines	E. E 302	18	5	0	7½	
D. C. Machines Laboratory	E. E. 303	18	0	4	3	
A. C. Machines Laboratory	E. E. 304	18	0	4	3	
1st Year Adv. R.O.T.C.	Mil. Sc. 301	36	4	4	9	63
FIRST CLASS						
Electronics	E. E. 402ab	24	5	0	10	
Electronics	E. E. 405c	12	5	0	5	
Electronics Laboratory	E. E. 404ab	24	0	4	4	
Electronics Laboratory	E. E. 407c	12	0	4	2	
Electrical Measurements	E. E. 401a	12	5	0	5	
Electrical Meas. Laboratory	E. E. 403a	12	0	4	2	
A. C. Theory	E. E. 406a	12	5	0	5	
Transmission Lines	E. E. 408b	12	5	0	5	
Heat Engines	E. E. 409b	12	5	0	5	
Power Plant Engineering	E. E. 410c	12	5	0	5	
Public Speaking	Engl. 205a	12	3	0	3	
Senior Essay	E. E. 425	24	0	3	3	
2nd Year Adv. R.O.T.C.	Mil. Sc. 401	36	4	4	9	63
				Total		238

ENGLISH MAJOR

Subject	Courses	No. of Weeks	Clock Hrs. per week Rec.	Lab.	Qr. Hrs. Credits	Total
FOURTH CLASS						
Freshman Mathematics	Math. 102	36	3	0	9	
Composition and Literature	Engl. 101 (102)	36	3	0	9	
Survey of American History	Hist. 102	36	3	0	9	
General Inorganic Chemistry	Chem. 102	36	2	2	9	
A Foreign Language		36	3	0	9	
1st Year Basic R.O.T.C.	Mil. Sc. 101	36	2	4	6	51
THIRD CLASS						
Survey of English Literature	Engl. 201	36	3	0	9	
Introduction to College Physics	Phys. 202	36	3	2	12	
European Civilization since 1500	Hist. 202	36	3	0	9	
The English Language	Engl. 203	36	3	0	9	
A Foreign Language		36	3	0	9	
2nd Year Basic R.O.T.C.	Mil. Sc. 201	36	2	4	6	54
SECOND CLASS						
English Course*		36	3	0	9	
English Course*		36	3	0	9	
Elective		36	3	0	9	
Elective		36	3	0	9	
Elective		36	3	0	9	
1st Year Adv. R.O.T.C.	Mil. Sc. 301	36	4	4	9	54
FIRST CLASS						
English Course*		36	3	0	9	
English Course*		36	3	0	9	
Elective		36	3	0	9	
Elective		36	3	0	9	
Elective		36	3	0	9	
Senior Essay	Engl. 425	24	0	3	3	
2nd Year Adv. R.O.T.C.	Mil. Sc. 401	36	4	4	9	57
			Total			216

*Other than 205abc, 315abc or 405ab.

HISTORY MAJOR

Subject	Courses	No. of Weeks	Clock Hrs. per week Rec.	Lab.	Qr. Hrs. Credits	Total
FOURTH CLASS						
Freshman Mathematics	Math. 102	36	3	0	9	
Composition and Literature	Engl. 101 (102)	36	3	0	9	
Survey of American History	Hist. 102	36	3	0	9	
General Inorganic Chemistry	Chem. 102	36	2	2	9	
A Modern Language		36	3	0	9	
1st Year Basic R.O.T.C.	Mil. Sc. 101	36	2	4	6	51
THIRD CLASS						
Survey of English Literature	Engl. 201	36	3	0	9	
Introduction to College Physics	Phys. 202	36	3	2	12	
European Civilization since 1500	Hist. 202	36	3	0	9	
American Government	Polit. 201	36	3	0	9	
A Modern Language		36	3	0	9	
2nd Year Basic R.O.T.C.	Mil. Sc. 201	36	2	4	6	54
SECOND CLASS						
History of England	Hist. 301	36	3	0	9	
United States since 1900	Hist. 303	36	3	0	9	
or						
Europe since 1870	Hist. 304	36	3	0	9	
Econ. Foundations of Modern Life	Polit. 307	36	3	0	9	
Electives (two)		36	3	0	18	
1st Year Adv. R.O.T.C.	Mil. Sc. 301	36	4	4	9	54
FIRST CLASS						
American Diplomatic History	Hist. 402ab	24	3	0	6	
or						
Latin American History	Hist. 404ab	24	3	0	6	
One three-hour History Course		12	3	0	3	
Colonial America	Hist. 406	36	3	0	9	
or						
The Ancient World	Hist. 407	36	3	0	9	
International Politics	Polit. 405	36	3	0	9	
or						
The American Constitution	Polit. 401	36	3	0	9	
Electives (2)		36	3	0	18	
Senior Essay	Hist. 425	24	0	3	3	
2nd Year Adv. R.O.T.C.	Mil. Sc. 401	36	4	4	9	57
				Total		216

MATHEMATICS MAJOR

Subject	Courses	No. of Weeks	Clock Hrs. per week Rec.	Lab.	Qr. Hrs. Credits	Total
FOURTH CLASS						
College Algebra	Math. 111a	12	5	0	5	
Trigonometry	Math. 112b	12	5	0	5	
Analytic Geometry	Math. 113c	12	5	0	5	
Composition and Literature	Engl. 101 (102)	36	3	0	9	
General Inorganic Chemistry	Chem. 101	36	3	2	12	
A Modern Language		36	3	0	9	
1st Year Basic R.O.T.C.	Mil. Sc. 101	36	2	4	6	51
THIRD CLASS						
Survey of English Literature	Engl. 201	36	3	0	9	
Introduction to College Physics	Phys. 201	36	3	2	12	
Calculus	Math. 201	36	5	0	15	
A Modern Language		36	3	0	9	
Survey of American History	Hist. 102	36	3	0	9	
2nd Year Basic R.O.T.C.	Mil. Sc. 201	36	2	4	6	60
SECOND CLASS						
Solid Analytic Geometry and Intermediate Calculus	Math. 301a	12	3	0	3	
Differential Equations	Math. 302bc	24	3	0	6	
Higher Mathematics		36	3	0	9	
Survey of American History	Hist. 102	36	3	0	9	
Electives (two)		36	3	0	18	
1st Year Adv. R.O.T.C.	Mil. Sc. 301	36	4	4	9	54
FIRST CLASS						
Advanced Mathematics		36	3	0	9	
Advanced Mathematics		36	3	0	9	
Electives (three)		36	3	0	27	
Senior Essay	Math. 425	24	0	3	3	
2nd Year Adv. R.O.T.C.	Mil. Sc. 401	36	4	4	9	57
				Total		222

MODERN LANGUAGE MAJOR

Subject	Courses	No. of Weeks	Clock Hrs. per week Rec.	Lab.	Qr. Hrs. Credits	Total
FOURTH CLASS						
Freshman Mathematics	Math. 102	36	3	0	9	
Composition and Literature	Engl. 101 (102)	36	3	0	9	
Survey of American History	Hist. 102	36	3	0	9	
General Inorganic Chemistry	Chem. 102	36	2	2	9	
A Modern Language		36	3	0	9	
1st Year Basic R.O.T.C.	Mil. Sc. 101	36	2	4	6	51
THIRD CLASS						
Survey of English Literature	Engl. 201	36	3	0	9	
Introduction to College Physics	Phys. 202	36	3	2	12	
European Civilization since 1500	Hist. 202	36	3	0	9	
French, Elementary or Intermediate	Fr. 101 (201)	36	3	0	9	
Spanish or German		36	3	0		
2nd Year Basic R.O.T.C.	Mil. Sc. 201	36	2	4	6	54
SECOND CLASS						
Intermediate French	Fr. 201	36	3	0		
or					9	
Survey of French Literature	Fr. 301	36	3	0		
Intermediate or Advanced Spanish		36	3	0		
or					9	
Intermediate or Advanced German		36	3	0		
French Composition and Conversation	Fr. 401	36	3	0		
or					9	
An additional course in Spanish or German		36	4	0		
Electives (two)		36	3	0	18	
1st Year Adv. R.O.T.C.	Mil. Sc. 301	36	4	4	9	54
FIRST CLASS						
An Advanced French Course		36	3	0	9	
German Literature, 19th Century or Faust		36	3	0		
or						
Spanish Literature of the Golden Age	Span. 30	36	3	0	9	
or						
Spanish-American Literature	Span 303	36	3	0		
Electives (three)		36	3	0	27	
Senior Essay	Mod. Lang. 425	24	0	3	3	
2nd Year Adv. R.O.T.C.	Mil. Sc. 401	36	4	4	9	57
				Total		216

PHYSICAL EDUCATION MAJOR

Subject	Courses	No. of Weeks	Clock Hrs. per week Rec.	Lab.	Qr. Hrs. Credits	Total
FOURTH CLASS						
Freshman Mathematics	Math. 102	36	3	0	9	
Composition and Literature	Engl. 101 (102)	36	3	0	9	
Survey of American History	Hist. 102	36	3	0	9	
General Inorganic Chemistry	Chem. 102	36	2	2	9	
A Foreign Language		36	3	0	9	
1st Year Basic R.O.T.C.	Mil. Sc. 101	36	2	4	6	51
THIRD CLASS						
Survey of English Literature	Engl. 201	36	3	0	9	
Introduction to College Physics	Phys. 202	36	3	2	12	
General Biology	Biol. 202	36	3	0	9	
A Foreign Language		36	3	0	9	
Music Appreciation	Art 301a	12	5	0	5	
Art Appreciation	Art 301b	12	5	0	5	
Public Speaking	Engl. 205a	12	3	0	3	
2nd Year Basic R.O.T.C.	Mil. Sc. 201	36	2	4	6	58
SECOND CLASS						
European Civilization since 1500	Hist. 202	36	3	0	9	
Anatomy	Biol. 302ab	24	3	0	6	
Physiology	Biol. 302c	12	3	0	3	
Introduction to Physical Education	Ph. Ed. 301a	12	3	0	3	
Health Education	Ph. Ed. 302b	12	5	0	5	
Individual Physical Education	Ph. Ed. 303c	12	3	0	3	
Gymnastics, etc.	Ph. Ed. 304b	12	—	—	3	
Basketball and Tennis	Ph. Ed. 305a	12	—	—	3	
Introduction to Sociology	Soc. 301	12	3	0	3	
Educational Psychology	Ed. 301ab	24	3	0	6	
Principles and Problems of Ed. I	Ed. 302a	12	3	0	3	
1st Year Adv. R.O.T.C.	Mil. Sc. 301	36	4	4	9	56
FIRST CLASS						
Organization and Administration of Physical Education	Ph. Ed. 401ab	24	3	0	6	
Baseball and Track	Ph. Ed. 402c	12	—	—	3	
Football	Ph. Ed. 403c	12	—	—	3	
Intramural Sports	Ph. Ed. 406	36	—	—	1	
Methods and Materials	Ed. 401	12	3	0	3	
Directed Teaching	Ed. 402	—	—	—	9	
Audio-Visual Aids	Ed. 407c	12	3	0	3	
Economics	Polit. 307	36	3	0	9	
Principles and Problems of Ed. II	Ed. 302b	12	3	0	3	
Senior Essay	Ed. 425	24	0	3	3	
2nd Year Adv. R.O.T.C.	Mil. Sc. 401	36	4	4	9	52
				Total		217

PHYSICS MAJOR

Subject	Courses	No. of Weeks	Clock Hrs. per week Rec.	Lab.	Qr. Hrs. Credits	Total
FOURTH CLASS						
College Algebra	Math. 111a	12	5	0	5	
Trigonometry	Math. 112b	12	5	0	5	
Analytic Geometry	Math. 113c	12	5	0	5	
Composition and Literature	Engl. 101 (102)	36	3	0	9	
General Inorganic Chemistry	Chem. 101	36	3	2	12	
German	Ger. 101	36	3	0	9	
or						
Engineering Drawing	C. E. 101	36	1	3	9	
1st Year Basic R.O.T.C.	Mil. Sc. 101	36	2	4	6	51
THIRD CLASS						
Survey of English Literature	Engl. 201	36	3	0	9	
Introduction to College Physics	Phys. 201	36	3	2	12	
Calculus	Math. 201	36	5	0	15	
Elective		36	3	0	9	
Survey of American History	Hist. 102	36	3	0	9	
2nd Year Basic R.O.T.C.	Mil. Sc. 201	36	2	4	6	60
SECOND CLASS						
Solid Analytic Geometry and Intermediate Calculus	Math. 301a	12	0	0	3	
Differential Equations	Math. 302bc	24	3	0	6	
Advanced General Physics	Phys. 301	36	5	0	15	
Laboratory Physics	Phys. 303	36	0	4	6	
Electrical Engineering	E. E. 301ab	24	5	0	10	
Electrical Engineering	E. E. 303ab	24	0	4	4	
Physics (selected topics)	Phys. 308c	12	5	0	5	
Laboratory Physics (selected topics)	Phys. 310c	12	0	4	2	
1st Year Adv. R.O.T.C.	Mil. Sc. 301	36	4	4	9	60
FIRST CLASS						
Advanced Physics	Phys. 401	36	5	0	15	
Advanced Physics Laboratory	Phys. 403	36	0	4	6	
Electives (two)		36	0	3	18	
Senior Essay	Phys. 425	24	0	3	3	
2nd Year Adv. R.O.T.C.	Mil. Sc. 401	36	4	4	9	51
				Total		222

POLITICAL SCIENCE MAJOR

Subject	Courses	No. of Weeks	Clock Hrs. per week Rec.	Lab.	Qr. Hrs. Credits	Total
FOURTH CLASS						
Freshman Mathematics	Math. 102	36	3	0	9	
Composition and Literature	Engl. 101 (102)	36	3	0	9	
Survey of American History	Hist. 102	36	3	0	9	
General Inorganic Chemistry	Chem. 102	36	2	2	9	
A Modern Language		36	3	0	9	
1st Year Basic R.O.T.C.	Mil. Sc. 101	36	2	4	6	51
THIRD CLASS						
Survey of English Literature	Engl. 201	36	3	0	9	
Introduction to College Physics	Phys. 202	36	3	2	12	
European Civilization since 1500	Hist. 202	36	3	0	9	
American Government	Polit. 201	36	3	0	9	
A Modern Language		36	3	0	9	
2nd Year Basic R.O.T.C.	Mil. Sc. 201	36	2	4	6	54
SECOND CLASS						
International Law and Organization	Polit. 303	36	3	0	9	
Econ. Foundations of Modern Life	Polit. 307	36	3	0	9	
American Foreign Relations	Polit. 304bc	24	3	0	6	
Public Administration	Polit. 306ab	24	3	0	6	
American Political Parties	Polit. 305c	12	3	0	3	
Electives			3	0	12	
1st Year Adv. R.O.T.C.	Mil. Sc. 301	36	4	4	9	54
FIRST CLASS						
The American Constitution	Polit. 401	36	3	0	9	
International Politics	Polit. 405	36	3	0	9	
Political Theory	Polit. 407	36	3	0	9	
Government Finance	Polit. 406ab	24	3	0	6	
Electives			3	0	12	
Senior Essay	Polit. 425	24	0	3	3	
2nd Year Adv. R.O.T.C.	Mil. Sc. 401	36	4	4	9	57
			Total			216

PRE-MEDICAL COURSE

Subject	Courses	No. of Weeks	Clock Hrs. per week Rec.	Clock Hrs. per week Lab.	Qr. Hrs. Credits	Total
FOURTH CLASS						
Freshman Mathematics	Math. 102	36	3	0	9	
Composition and Literature	Engl. 101 (102)	36	3	0	9	
Survey of American History	Hist. 102	36	3	0	9	
General Inorganic Chemistry	Chem. 101	36	3	2	12	
French, German, or Spanish	101	36	3	0	9	
1st Year Basic R.O.T.C.	Mil. Sc. 101	36	2	4	6	54
THIRD CLASS						
Survey of English Literature	Engl. 201	36	3	0	9	
Introduction to College Physics	Phys. 201	36	3	2	12	
Chemical Analysis, Qualitative	Chem. 201	36	2	3	9	
Elementary Zoology	Biol. 201	36	2	4	12	
French, German, or Spanish	201	36	3	0	9	
2nd Year Basic R.O.T.C.	Mil. Sc. 201	36	2	4	6	57
SECOND CLASS						
Comparative Anatomy	Biol. 301	36	2	4	12	
Organic Chemistry	Chem. 303	36	3	3	12	
Laboratory Physics	Phys. 305	36	2	2	9	
Physiological Psychology	Psy. 301ab	24	3	0	6	
Abnormal Psychology	Psy. 301c	12	3	0	3	
Elective		36	3	0	9	
1st Year Adv. R.O.T.C.	Mil. Sc. 301	36	4	4	9	60
FIRST CLASS						
Embryology	Biol. 401ab	24	2	4	8	
Chemical Analysis, Quantitative	Chem. 301ab	24	2	4	8	
Adv. Topics in Organic Chemistry	Chem. 404bc	24	3	0	6	
Advanced Inorganic Chemistry	Chem. 405a	12	3	0	3	
Physical Chem. for Pre-Med. Students	Chem. 406bc	24	3	0	6	
Elective		36	3	0	9	
Senior Essay	Chem. 425	24	0	3	3	
2nd Year Adv. R.O.T.C.	Mil. Sc. 401	36	4	4	9	52
				Total		223

PRE-DENTAL COURSE

Subject	Courses	No. of Weeks	Clock Hrs. per week Rec.	Lab.	Qr. Hrs. Credits	Total
FOURTH CLASS						
Freshman Mathematics	Math. 102	36	3	0	9	
Composition and Literature	Engl. 101 (102)	36	3	0	9	
Survey of American History	Hist. 102	36	3	0	9	
General Inorganic Chemistry	Chem. 101	36	3	2	12	
German, French, or Spanish	101	36	3	0	9	
1st Year Basic R.O.T.C.	Mil. Sc. 101	36	2	4	6	54
THIRD CLASS						
Survey of English Literature	Engl. 201	36	3	0	9	
Introduction to College Physics	Phys. 201	36	3	2	12	
Organic Chemistry	Chem. 303	36	3	3	12	
Elementary Zoology	Biol. 201	36	2	4	12	
German, French, or Spanish	201	36	3	0	9	
2nd Year Basic R.O.T.C.	Mil. Sc. 201	36	2	4	6	60

Students studying for a B.S. degree will take the courses outlined in the Pre-Medical curriculum.

DEPARTMENT OF AIR SCIENCE AND TACTICS

The Citadel requires all cadets to complete satisfactorily the four-year course of instruction of the Senior Division, ROTC, whether or not they are formally enrolled in the ROTC. Cadets who are physically qualified and are formally enrolled in and succesfully complete the entire AFROTC Program may be commissioned in the Air Force Reserve in the grade of Second Lieutenant upon completion of four years of education at college level and receipt of a baccalaureate degree from an accredited institution.

The mission of the AFROTC is to develop in prospective college graduates the qualities of leadership and other attributes essential to their progressive advancement to positions of increasing responsibility as commissioned officers, and to prepare them for immediate assignment to specific duties in the Regular Air Force, the Air National Guard, and the Air Force Reserve.

The Air Force ROTC consists of two parts, the basic course consisting of the first two years of Air Science and Tactics and corresponding to the freshman and sophomore years in the academic departments of The Citadel. The advanced course consists of the last two years in the Air Science and Tactics curriculum and corresponds to the junior and senior academic years, with a summer camp consisting of a six-week period of intensive applicatory training in general and specialized military and Air Force fields. Summer camp is normally attended by the AFROTC cadet during the summer between the junior and senior years.

A cadet may be admitted to the AFROTC Program with advanced standing subject to the discretion of the PAST and the institution authorities provided he furnishes satisfactory evidence of completion of portions of the Senior Division, AFROTC, at another institution. Cadets who have participated in ROTC training other than AFROTC will be enrolled only in the Air Force program in certain cases and with the approval of the PMS&T. Veterans honorably separated from the military service may be admitted with advanced standing to be determined by the PAST.

All AFROTC graduates are eligible to participate in the Air Force flying training and other technical programs in grade, provided they meet the physical standards and can pass the required aptitude qualification tests.

Draft Deferment — Draft deferments will be granted to qualified and accepted Advanced Course AFROTC students within the authorized advanced enrollment quota.

A certain percentage of draft deferments are allocated to students in the Basic Course AFROTC who meet the required qualifications. These deferred students will retain their deferment throughout their course in Air Science and Tactics, provided they maintain the required standards of deportment and academic endeavor.

The AFROTC Curriculum for the four years at The Citadel is as follows:

AS 101 - Introduction to AFROTC 4 hours

Introduction to Aviation 16 hours
(History of development of aviation, classes and types of aircraft, principles of flight)

Fundamentals of Global Geography 10 hours
(Map projections, major geographic areas of the earth, geography of weather, military aspects of global geography)

International Tensions and Security Structures 15 hours
(States of a nation as world powers, problems of international security, role of U. S. in world leadership)

Instruments of Natitonal Military Security 15 hours
(The Armed Forces, historical development, joint operations. Military aviation, place in modern war, characteristics and capabilities, the future of military aviation)

Drill - Basic Military Training 120 hours (Approx)
(This instruction continues throughout entire year including wearing of the uniform, military courtesy, elements of mass drill, and other leadership qualities)

AS 201

Elements of Aerial Warfare 52 hours
(1. Military targets, definitions and types.
2. Weapons including atomic, biological, rocket propelled and psychological.
3. Delivery aircraft including design and type.
4. Air ocean, significance of air as a medium of delivery.
5. Bases, types, location, size, and construction.
6. Forces, USAF combat and support organization)

Courses in the USAF 7 hours
(Purpose and operation of USAF officer career program)

Leadership Laboratory - Cadet Non-Commissioned Officer Training 120 hours (Approx)
(Continuation of subjects covered in AS I. Students gain experi-

ence in leading small cadet unit. Course continued through entire year)

AS 301

The Air Force Commander & His Staff 8 hours
(Responsibilities and functions of the Air Force Commander. Organization of staffs and principles of staff work)

Problem Solving Technique 10 hours
(Laws of learning, nature of thinking and problem solving)

The Communications Process and Air Force Correspondence 25 hours
(Nature of the communication process, communication media with emphasis on military correspondence, general semantics, and teaching methods)

Military Law, Courts and Boards 15 hours
(Crimes and offenses, types of courts-martial and board procedures)

Applied Air Science 50 hours
(Aerodynamics and propulsion, aircraft engines. Navigation and weather including weather reports, maps, and charts)

Air Force Base Functions 10 hours
(The typical air base organization, its function and functions of the various base officers)

Leadership Laboratory 120 hours (Approx)
(Scheduled through entire year and continue training of preceding two years plus leadership activities for cadet flight, squadron, and group activities)

Summer Camp - Six Weeks 232 hours

Processing 32 hours
(Pay, allowances, physical examinations)

Physical Training 12 hours
(Progressive calisthenics and organization of intramural sports program)

Drill 12 hours
(Actual exercises of laboratory work at colleges)

Individual Weapons 24 hours
(Familiarization and qualification firing of carbine, pistol, and submachine gun)

Familiarization Flying 18 hours
(Introduction to preflight, in-flight, and post-flight activities of aircrewmen)

Field Exercise 40 hours
(Personal hygiene; first aid, camouflage, interior and exterior guard and airdrome defense)

USAF Base Activitiy and Equipment 32 hours
(Familiarization of cadets with duties on an Air Force Base to include tactical and support group mission)

Air Base Problems 40 hours
(Rotating participation in various officer positions on a typical Air Force Base in the United States)

Camp Commanders Time 10 hours
Free Time 12 hours

AS 401

Critique of Summer Camp, Introduction to AS&T IV 2 hours

Leadership Seminar 38 hours
(Leadership concepts and responsibilities, functions and leadership at various echelons of command, management and human relation aspects of leadership)

Career Guidance 5 hours
(Review of regular and reserve commissions in USAF, career fields, and specialized training opportunities)

Military Aspects of World Political Geography 45 hours
(Framework of international politics, anatomy of political power, geographical basis of power, world military political factors of geography, world powers and strategic areas, and world security problems in relation to international power clashes)

Military Aviation and The Art of War 20 hours
(Principles of War; historical survey of basic land, naval, and air warfare; modern warfare with emphasis on military aviation)

Briefing for Commissioned Service 10 hours
(How to prepare and report for first assignment, attitude and activities of primary concern to a newly commissioned officer and the long range reserve plan)

Leadership Laboratory 120 hours (Approx)
(Continuation of military training offered in the first three years, plus instruction of subordinates, planning and supervising drill and other cadet corps activities)

DEPARTMENT OF BUSINESS ADMINISTRATION

Modern business has become so large in the size of industral units and so complex in organization that a mastery of its theory and practice can no longer be acquired through apprenticeship. Today no single industry or business can give so adequate a training to its beginners as can be obtained in the department of business administration of a good college. Such college training is now considered the best method of equipping a man for success as a business and economic leader.

The purpose of the Department of Business Administration is to prepare the student to take his place in a business enterprise with such general knowledge of business that he can forego many of the years of experience which would be required of an apprentice, and to prepare him to enter in full standing the graduate schools of business administration, to pursue further professional business studies, and to take his place in economic society as a professional man in other fields of endeavor with sufficient knowledge to make sound decisions on economic problems.

The courses described below are not all pure business courses; rather they are designed to offer instruction in subjects commonly given in schools of arts and science, in schools of social science, and in schools of business administration.

200. Preface to Economics

Required of all sophomores taking the Business Administration Course.

A study of the origins of capitalism. Some of the early economic institutions; community systems, manorial system, guild system, early factory system, development of present capitalistic order. The discussion, conducted on the basis of comparison, is for the purpose of determining the origin and development of essential characteristics of modern capitalism.

201. Economic Principles

Required of all sophomores taking the Business Adminstration Course.

A study of the principles underlying our economic structure. An analysis of supply and demand, the pricing process. problems and practices in valuation, personal and functional distribution of income. Prerequisite, B. Ad. 200.

202. Economic Principles and Problems

Required of all sophomores taking the Business Administration Course.

A study of the principles and problems of money, banking, credit,

international economic relations, government finance and taxation, labor, and economic reform. Prerequisite, B. Ad. 201.

203. Raw Material Wealth

Required of all sophomores taking the Business Administration Course.

A study of the geography and the economics of raw materials; the location, the quantity, the quality, the values before and after manufacturing; manufacturing processes; relative importance to economic society.

204. Business Psychology

Required of all sophomore taking the Business Administration Course.

Applied psychology as an aid to the business executive; statistical measures as an aid to the psychologist; vocational psychology, hiring and promotion of the employee; the psychological factor in the business cycle. The psychology of granting credit, selling, advertising and market research.

206. Business Statistics

A study of the mathematical computations common in business practice; interest, discount, annuities, bonds, capitalized costs, and insurance; statistical methods and their application to business problems.

303. Accounting Principles

Required of all juniors taking the Business Administration Course.

A study of the fundamentals of accounting including the analysis and recording of business transactions, and the preparation of financial statements for individuals. Practical problems are given in laboratory.

304. Accounting Practice

Required of all juniors taking the Business Administration Course.

A study of specific accounting problems relating to partnerships and corporations, including the problems of manufacturing costs which affect the policies of industrial management. Practical problems are given in laboratory. Prerequisite B. Ad. 303.

305. Business Law

Required of all juniors taking the Business Administration Course.

A discussion of the law which relates to the business man: contracts, agency, negotiable instruments, business association, sales, bailments, security relations, real property, and the like. Discussion of court decisions in actual cases supplements the class work. Prerequisites, B. Ad. 202.

306. Business Organization

Required of all juniors taking the Business Administration Course.

The legal relations of a business unit; kind of organization best adapted to various sorts of business activity; internal organization for maximum efficiency. Prerequisites, B. Ad. 303 and 305.

307. Principles of Labor

Required of all juniors taking the Business Administration Course.

An analysis of the worker's position in modern industry and the effects of industrial production on the worker's social position, introducing problems of wages, hours, working conditions, child labor, industrial accidents, unemployment, trade unions and collective bargaining. Economic problems of the worker under current labor legislation are considered. Prerequisite, B. Ad. 202.

308. General Insurance

Required of all juniors taking the Business Administration Course.

A survey course in predictable business risks and the methods of minimizing these risks through insurance; intelligent planning of a program of insurance for personal needs and business responsibilities; contract forms, coverages, and rates of life, fire, casualty, and marine insurance, and fidelity and surety bonds.

309. Marketing

Required of all juniors taking the Business Administration Course.

The business activities necessary to effect the physical distribution of goods from the producer of the raw materials to the consumer; the marketing institutions; a study of the marketing functions and some marketing problems such as price policies and price maintenance, brands, marketing costs and efficiency. Prerequisites, B. Ad. 202 and 203.

310. Foreign Trade

Required of all juniors taking the Business Administration Course.

The channels of distribution for surplus goods which have to find their outlet in foreign countries; the theory of international trade; foreign trade promotion activities; the commercial organization and policies governing foreign trade practices; trade methods and problems; financial arrangements. Prerequisite, B. Ad. 309.

311. Government Finance

Required of all juniors taking the Business Administration Course.

A survey of the amount and purposes of governmental expenditures; scope of government financial activity; public budgets; principles of public borrowing; sources of revenue; theories of tax distribution; general principles and practices of the property tax, commodity taxes, corporation and other business taxes. Prerequisite, B. Ad. 202.

312. Taxation

Required of all juniors taking the Business Administration Course.

A study of the basic principles of income taxation, including a thorough analysis of the present Federal law dealing both with persons and corporations; a survey of social security taxes, death taxes and gift taxes. Prerequisite, B. Ad. 311.

401. Advanced Accounting Theory and Practice

Required of all seniors taking the Business Administration Course.

An intensive study of accounting statements and the items that comprise them. Evaluation and analysis both in class and in laboratory are the main themes. Prerequisite, B. Ad. 304.

402. Advanced Accounting Problems

Required of all seniors taking the Business Administration Course.

A study of advanced accounting problems including the technical procedures in the organization and liquidation of partnerships, mergers and consolidations, estates, trusts, and receiverships. Practice problems are done in laboratory. Prerequiste, B. Ad. 401.

403. Corporation Finance

Required of all seniors taking the Business Administration Course.

The manager's problem in securing, disposing of, conserving and using the finances of his business; the legal and practical uses of bond, stock, circulating capital; development of policies regarding dividends, surplus, income, expenses, and capitalization in relation to the size of the business unit and type of integration. Prerequisite, B. Ad. 306.

404. Investments

Required of all seniors taking the Business Administration Course.

Analysis of government, state, municipal, public utility, railroad, and industrial bonds; discussion of tendency to regard stocks as investments; the tests of a good investment which may be applied to securities so that the untrained person can at least be aware of the nature of his investments and the protection available to him. Prerequisite, B. Ad. 403.

405. Sales Administration

Required of all seniors taking the Business Administration Course.

The sales problems of retailers, wholesalers, and manufacturing concerns; merchandising policy and research; functions of the various departments connected with sales activities such as credit, traffic, and advertising; selection and training of salesmen; operation of sales branches; sales promotion as it deals with selling methods, advertising, and the planning of sales campaigns. Prerequisite, B. Ad. 310.

406. Transportation

Required of all seniors taking the Business Administration Course.

A study of the services rendered in the movement of goods by all forms of transportation; rate making; discrimination; competition; cooperation; administration; terminals; and the general effects of all these problems on the public. Prerequisite, B. Ad. 202 and advisedly 405.

407. Money

Required of all seniors taking the Business Administration Course.

The nature and functions of money, the various monetary standards; the development of our monetary system; the factors affecting the value of money; methods and objectives of money and credit control; international exchange; analysis of recent money and credit developments. Prerequisites, B. Ad. 202 and advisedly 312.

408. Banking

Required of all seniors taking the Business Administration Course.

A study of the functions, management and operation of commercial banks; the development of banking in the United States; the policies of the Federal reserve banks as they relate to the volume of physical production, the national income and the price level; the relation between commercial banks and investment institutions; organization, operation, and economic effects of the Federal Reserve System; probable effects of recent changes in banking. Prerequisite, B. Ad. 407.

409. Production

Required of all seniors taking the Business Administration Course.

The problems of the production manager; location, design of plants, internal and external transportation, inventory control, methods of measuring activities of personnel, incentives, efficiencies, budgets, and organization. Prerequisites, B. Ad. 202, 203 and advisedly 401.

410. Personnel Management

Required of all seniors taking the Business Administration Course.

The principles and practices in the management of employees which introduce positive stimuli into industrial endeavors and promote the industrial efficiency of labor, treating such factors as selection and placement, training, job analysis, promotion, turnover, health, morale building, and recreation. Prerequisite, B. Ad. 307.

425. Senior Essay

Required of all seniors as a prerequisite to graduation.

An essay designed to indicate the student's ability to use the English language, to find and organize source material, to use the writing conventions, and to draw conclusions from facts.

DEPARTMENT OF CHEMISTRY

The objectives of this department are to offer to all freshmen at The Citadel a course in the fundamentals of general chemistry, to provide a course of study for Chemistry Majors which will meet the educational requirements of the American Chemical Society for the professional chemist, to afford to pre-medical students adequate preparation for admission to standard medical colleges, and to provide a two-year course for students preparing for the study of dentistry.

Chemistry Major

The courses of study for students taking the Chemistry Elective are designed to give training which will prepare graduates to fill positions as chemists in commercial laboratories or as control chemists in industrial plants, and to provide the basic training for them to enroll as graduate students in full standing at the leading universities.

The courses of study embody training in the four fundamental subdivisions of the science: inorganic, organic, analytical, and physical chemistry.

The department occupies nine commodious laboratories and seven lecture rooms. The laboratories are well equipped with modern apparatus, and all of them are lighted with fluorescent lighting. Supplies are constantly maintained at a thoroughly adequate level.

A Chapter of Student Affiliates of the American Chemical Society has been organized at The Citadel.

Students majoring in chemistry are required to take all of the courses offered by the department for Chemistry Majors and also Mathematics 111a, 112b, 113c, and 201; German 101 and 201; and Physics 201.

Pre-Medical Major

The sequence of courses offered to students taking the Pre-Medical Elective course is based upon the requirements of the Association of American Medical Colleges for admission to a standard medical school. A student must not only complete certain prescribed work for admission to a medical school but must show also an aptitude for medical studies. The Medical Aptitude Test, prepared by the Association of American Medical Colleges, is given at The Citadel each year to all students who expect to apply for admission to a medical school.

Students taking the Pre-Medical Elective course are required to take Chemistry 101, 201, 301ab, 303, 401bc, 405a, and 406bc; Mathematics 102; Physics 201 and 305; German, French, or Spanish 101 and 201; Psychology 301; and Biology 201, 301, and 401.

Pre-Dental Major

Students who desire to prepare themselves for the study of dentistry are offered a two-year pre-dental course, which meets the minimum requirements of the American Association of Dental Colleges for admission to a standard school of dentistry. If the student decides to continue his college training for the Bachelor of Science degree, this curriculum will constitute the first two years of his college work. The courses taken during the Junior and Senior years must be the same as those required by The Citadel for the Bachelor of Science degree in pre-medicine. Students who complete the two-year pre-dental course are qualified for admission to a school for veterinarians or to a school of pharmacy.

Students taking the Pre-Dental Elective course are required to take Chemistry 101 and 303; Mathematics 102; Physics 201; German, French or Spanish 101 and 201; English 101 and 201; and Biology 201.

101. General Inorganic Chemistry

Required of all freshmen majoring in the sciences, engineering, or mathematics. Lectures and recitations, three hours a week; laboratory, two hours a week.

Theoretical and descriptive chemistry, including the elements of modern chemical theory and discussion of some of the more common industrial processes.

102 General Chemistry for Arts Students

Required of all freshmen majoring in the arts courses. Lectures and recitations, two hours a week; laboratory, two hours a week.

This course is designed for students majoring in the arts courses who do not expect to take any other courses in chemistry. The fundamental principles of chemistry as drawn from the experiences of daily life are considered. This course is less comprehensive than Chemistry 101.

201. Qualitative Analysis

Required of all sophomores taking the Chemistry or Pre-Medical Course; elective to others. Prerequisite, Chemistry 101. Lectures, two hours a week; laboratory, three hours a week.

The separation and identification of the ordinary cations and anions, with emphasis on the theory involved.

301ab. Quantitative Analysis: Volumetric

Required of all juniors taking the Chemistry Course and all seniors

taking the Pre-Medical Course; elective to others. Prerequisite, Chemistry 101 and 201. Lectures, two hours a week; laboratory, four hours a week.

In the laboratory, volumetric methods of analysis are undertaken. In the lecture room, appropriate stoichiometric problems are considered.

301c. Quantitative Analysis: Gravimetric

Required of all juniors taking the Chemistry Course; elective to others. Prerequisite, the same as for Course 301ab. Lectures, two hours a week; laboratory, four hours a week.

In the laboratory, gravimetric methods of analysis are undertaken. As in Course 301ab, appropriate stoichiometric problems are considered in the lecture room.

303. Organic Chemistry

Required of all juniors taking the Chemistry or Pre-Medical Course.

Prerequisite, Chemistry 101 and 201. Lectures and recitations, three hours a week; laboratory, three hours a week.

The aliphatic and aromatic series and heterocyclic compounds. Classroom discussions, lectures, and laboratory training in general reactions and synthetic methods.

401. Physical Chemistry

Required of all seniors taking the Chemistry Course; elective to others. Prerequisite, Chemistry 301, and Mathematics 101 and 201. Lectures and recitations, three hours a week; laboratory, three hours a week.

A study of the properties of solids, liquids, and gases, and of their relation to chemical constitution.

403a. Organic Preparatitons

Required of all seniors taking the Chemistry Course. Prerequisite, Chemistry 303. Lectures, one hour a week; laboratory, four hours a week. Advanced organic syntheses and technique with emphasis on purity and yield of products.

404bc. Advanced Topics in Organic Chemistry

Required of all seniors taking the Chemistry or Pre-Medical Course. Prerequisite, Chemistry 303. Lectures, three hours a week.

This course is designed to familiarize students with the survey of complicated molecules and their reactions, thus contributing to their facility for undertaking the study of bio-chemistry and other complicated fields of organic chemistry.

405a. Advanced General Chemistry

Required of all seniors taking the Pre-Medical Course; elective to others. Prerequisite, Chemistry 101 and 201. Lectures, three hours a week. A comprehensive review of inorganic chemistry with special emphasis on equilibria, the periodic law, and the relation of chemical behavior to atomic structure.

406bc. Physical Chemistry for Pre-Medical Students

Required of all seniors taking the Pre-Medical Course. Prerequisite, Chemistry 101, 201, and Physics 201. Lectures, three hours a week.

This course is designed to permit Pre-Medical students who are lacking in mathematical training to survey the general method of investigation of physical chemists in *quasi*-mathematical forms.

407ab. Advanced Quantitative Analysis

Required of all seniors taking the Chemistry Course; elective to others. Prerequisite, Chemistry 301. Lectures, two hours a week; laboratory, four hours a week.

Analysis of metals and alloys, iron ores, water analysis and boiler water control, fuels and fertilizer, and the application of modern instruments to the analysis of industrial materials.

408c. Qualitative Organic Analysis

Required of all seniors taking the Chemistry Course; elective to others. Prerequisite, Chemistry 303. Lectures, two hours a week; laboratory, four hours a week.

The classification, study of type reactions, and the identification of pure organic compounds and mixtures of organic compounds.

Biology and Geology

No attempt is made at The Citadel to maintain separate departments in these subjects. The courses are under the supervision of the Department of Chemistry.

The courses offered in biology meet the requirements of the more exacting medical colleges. However, since possibly no science has contributed in a larger manner to modern philosophy than these two, a knowledge of at least their elemental aspects is a distinct contribution to the general culture of the students. Accordingly, Biology 201 and Geology 301 are made available for election to all juniors and seniors. Geology 303 is offered especially for engineering students.

201. Elementary Zoology

Required of sophomores taking the Pre-Medical Course; elective to others. Lectures, two hours a week; laboratory, four hours a week. The various classes of animal organisms from the standpoint of anatomy, physiology, phylogeny and ecology. Occasional lectures are given on some of the broader aspects of the subject such as heredity, cycle of the germ-cell, pathogenic organisms.

202abc. General Biology

Required of all students electing the Teacher Training Program, and the Physical Education Program; elective to other students except those taking the Pre-Medical Course. Lecture, three hours a week. The more important principles of biology including taxonomy, anatomy, physiology, inheritance, variation, and organic development will be considered. Application of biological principles to human problems will be emphasized.

301. Comparative Vertebrate Anatomy

Required of juniors taking the Pre-Medical Course. Prerequisite, Biology 201. Lectures, two hours a week; laboratory, four hours a week. Comparative anatomy of vertebrate forms.

302ab. Human Biology: Anatomy

Limited to juniors electing the Physical Education Program. Prerequisite, Biology 202. Lectures, three hours a week.

The structure of the human body is considered, with special emphasis upon the skin, musculature, and the skeleton. Lectures also treat of the main internal systems. Demonstrations of organ systems in various laboratory animals are presented.

302c. Human Biology: Physiology

Limited to juniors electing the Physical Education Program. Prerequisite, Biology 202. Lectures, three hours a week.

A consideration of human physiology from a practical point of view. The processes of digestion, assimilation, elimination, circulation, respiration, excretion, and reproduction are considered.

401ab. Embryology

Required of all seniors taking the Pre-Medical Course. Prerequisite, Biology 201. Lectures, two hours a week; laboratory, four hours a week. Embryology of representative vertebrates, including the amphibian and bird, with additional material on mammals.

301. Elementary Geology

Elective to all juniors and seniors. Lectures, three hours a week; laboratory, two hours a week.

The various processes, such as crust movements, igneous influences, weathering, erosion, denudation, and transportation, which have been instrumental in shaping the earth; the composition, structure, and arrangement of igneous and sedimentary rocks; and a survey of the historical aspects.

303a. Engineering Geology

Required of juniors taking the Civil Engineering Course. Lectures, three hours a week; laboratory, two hours a week.

The origin and occurrence of the three major groups of rocks, their composition, resistance to weathering, and employment in engineering construction. The various processes of dynamic geology are considered with special reference to their application to engineering practice.

401c. Descriptive Histology

Elective to all seniors taking the Pre-Medical or Pre-Dental course. Prerequisite, Biology 301. Lectures, two hours a week; laboratory, two hour a week.

Histology of mammalian tissue with descriptive function of each. Practical work in the identification of vertebrate tissue and occasional lectures on microscopic technique.

425. Senior Essay

Required of all seniors as prerequisite for graduation.

A report based upon the survey of the literature on some phase of chemistry or allied pre-medical or pre-dental subject. The phase selected should be one in which the student is interested and not covered by any prescribed course of study. The purpose of the essay is to give the student an opportunity to search the available literature for information on some topic and to present it in a clear and organized manner. The entire task of preparing the essay is to be done by the student with the guidance and supervision of a member of the chemistry department faculty assigned to him as faculty director. A rough draft of the paper should be submitted to the faculty director at least thirty days before graduation and the final typewritten copy at least fourteen days before graduation.

DEPARTMENT OF CIVIL ENGINEERING

The objective of this department is to give a course that will meet the basic educational requirements of the profession of civil engineering This objective is sought through a coordinated program of liberal, scientific, and technological courses designed to broaden and enrich the student's general education as well as to lay the foundation for technical competence. A four-year undergraduate program does not provide time for more than a few of the most essential liberal courses; hence, with the exception of English, history, and the sciences, students of engineering must depend upon the liberal value of the technical and professional courses to achieve a reasonably well-rounded general education. Such liberal value as may be developed in these courses will depend to a great extent upon the skill with which instructors use them to awaken catholicity of interest and social consciousness in the students.

The program in the freshman class does not differ essentially from liberal programs in most undergraduate courses. In the sophomore class, limited specialization begins by the introduction of courses in surveying, descriptive geometery, and graphic statics. In the junior and senior classes the time is devoted to basic professional courses. Throughout the four years the program is taught with the primary emphasis upon inculating habits of orderly study, investigation, and sound reasoning rather than upon the mere acquisition of factual information. Constant attention, too, is given to engineering procedure in its wider sense, that is, the characteristic methods by which engineers conceive, design, and construct engineering projects.

Such a curriculum, ably taught, should prepare the better students to develop a mastery of such special fields as their subsequent employment may lead to, or to pursue more advanced work in the graduate schools of engineering. In general educational value, if properly adapted to the student's interests and aptitudes, should meet the educational demands of good citizenship in whatever field the graduate enters.

The new concept of the engineer is that of a professional man thoroughly grounded in technology but also alive to the social and economic implications of his professional activities. It appears to be clearly the duty of engineering schools to fashion their graduates in this mold in so far as time limitations will permit.

The civil engineering curriculum is accredited by Engineers' Council for Professional Development.

There is a successful chapter of the American Society of Civil Engineers.

DEGREES — The degree of Bachelor of Science in Civil Engineering (B.S. in C.E.) is awarded to those who successfully complete the program of studies on page 57. For the regulations governing the award of the degree of Civil Engineer, see page 53.

BUILDING — The Department is housed in its own building on the north of the campus. This building was designed specifically for the needs of civil engineering instruction, and it contains the necessary laboratories, drafting rooms, classrooms, and other rooms needed to carry on the work of the department.

LIBRARY — The Department maintains a small but well selected and arranged library that is open to students at all hours. Current copies and files of leading engineering magazines are available in the reading room.

EQUIPMENT — Well equipped laboratories are maintained for work in cement and concrete, soils, hydraulics and structural materials. For the work in cements and concrete a curing room with automatic temperature and humidity controls and another room for steam curing experiments are available.

In the concrete laboratory there is an adequate supply of equipment for every student to prepare his individual test specimens. This equipment includes a large supply of molds, four Buffalo 250-0.01 lb. and one Toledo 500-0.1 lb. platform scales, mixing tables, immersion tank, electric ovens, steaming tank, Riehle cement testing machine, Gilmore and Vicat apparatus, and the usual articles of minor equipment.

In the materials testing laboratory the main items of equipment are a 400,000 lb. Baldwin-Southwark universal hydraulic testing machine with a clearance of ten feet for column testing and a 36 in. wide working table, a 150,000 lb. Olsen universal screw-power universal testing machine, a Rockwell hardness testing machine, a Sonntag fatigue machine, Brinell, cold bend, shearing, and transverse testing attachments, three spherically seated bearing blocks, plain V-grip, and threaded specimen holders for tensile testing, self-adjusting tension grips for shoulder end specimens; SR-4, Berry, Whittemore, and G. F. Moore strain gauges; compressometers, deflectometers, and other instruments for measuring deformation; machined bearing blocks and machined I-beam with adjustable supports for transverse tests. This laboratory is equipped with an overhead crane for handling heavy specimens in any part of the room.

The soils laboratory is equipped with both scale and dead-weight consolidometers, triaxial and direct shear machines, unconfined compression machine, permeameters, Atterberg limit equipment, Proctor

and modified A.A.S.H.O. compaction apparatus, standard sieves and soil hydrometers, C.B.R. apparatus, and other equipment needed for tests and experiments with soils.

For asphalt testing there is available a Rotarex, Engler viscosimeter, analytical balances, a laboratory hood, constant temperature bath, penetrometers, drying ovens, hot plates, float tests apparatus, melting point and flash point equipment, sieves, stop watches, and the usual articles of minor equipment.

The hydraulics laboratory is equipped for a variety of experiments in the flow of water through pipes and orifices and over weirs and spillways. Water is supplied by a 500 gpm centrifugal pump to a constant head tank, from which it is distributed to the various test units and returned through floor channels to the pump intake. Equipment includes Venturi meter, orifices, weirs, pipe ranges for loss-of-head tests, differential gauges, hook gauges, weighing tanks and scales.

Adequate equipment is available for the courses in surveying. This includes fourteen transits, nine levels, four plane tables, two sextants, two aneroid barometers, several compasses, standardized tapes, and a complete supply of level rods, tapes, pins, and other minor items. For photogrammetric work there is available a rectoplanograph, stereocomparagraph, stereoscopic radial plotter, extended eye base sterescope, parallax bar, "Lazy Daisy" mechanical triangulation set, twenty pocket sterescopes, and about five hundred aerial photographs of various sections of the United States including a complete sterescopic coverage of Charleston County, South Carolina. This equipment is used in both Surveying 205c and Drawing 203c.

During the past year all drafting rooms and the library have been equipped with the latest type flourescent lighting. Two large classrooms may be darkened at any time for the use of motion pictures, for which sound projectors are available. The drafting rooms are equipped with tables, drafting machines, and an ample supply of parallel rules, planimeters, pantographs, and other minor items. A printing room is equipped with a dry-print machine by the Ozalid Company.

A computations room in the center of the building and open to students at all times is equipped with ten Monroe calculating machines. This facility has done much to expedite arithmetical calculations and thus saves the students' time.

DESCRIPTION OF COURSES

(A student may not enter any course until he has credit for all prerequisite courses as given in the course description which follow.)

101. Engineering Drawing

Four hours a week, three quarters.

Use and care of drawing instruments; proper weights and types of lines for clear, clean-cut, and complete graphical representation; useful geometrical constructions; freehand sketching; orthographic projection with emphasis on auxiliary, revolved, and sectional views; dimensioning; true length and shapes; intersections and developments; pictorial representation, with emphasis on isometric views. Development of reasonable skill in lettering is a requirement for credit in this course. The work of each term must be satisfactorily completed before a student can be advanced.

202a. Descriptive Geometry

Two hours a week, one quarter.

A series of problems on points, lines, and planes in the third angle of projection, to be solved by the method of auxiliary planes. Problems are selected with a view of emphasizing the practical application of the subject and of developing the ability of the student to think in three dimensions. Prerequisite, C. E. 101.

202bc. Graphic Statics

Two hours a week, two quarters.

This course is introduced to give students a graphical representation of the distribution of stresses in structures and structural elements as preparation for more advanced analytic and graphic treatment of the subject. Beginning with the parallelogram of forces the course includes force polygons, stress diagrams, funicular polygons, moment and shear diagrams, and deflection diagrams. Prerequisite, C. E. 101c, Phy. 201a, Math. 113c.

203a. Machine Drawing

Four hours a week, one quarter.

The objective of this course is to give the students training in the drafting of machines and machine parts and to acquaint them with the methods employed for representing fastenings, springs, and other machine parts. Detail and assembly drawings are made of simple machines, with special attention to the theory of dimensioning, precise measurements, and checking. Prerequisite, C. E. 101.

203b. Topographical Drawing

Four hours a week, one quarter.

Contour mapping in the representation of earth forms and the solution of problems by the use of contour maps; profiles, and cross-sections;

methods of plotting; use of planimeter in area and earthwork computations; topographic symbols. Students are briefed on the utility of the maps and charts of the U. S. Geological Survey for preliminary studies of proposed engineering projects. Prerequisite, C. E. 203a.

203c. Elementary Photogrammetry

Four hours a week, one quarter.

This course is designed to acquaint the student with the interpretation of aerial photographs of land areas. The use of the principal mechanical devices for reducing such photographs to forms in which they will serve as a basis for engineering projects is explained and the advantages outlined. This course is closely coordinated with C. E. 205c, which must be taken before or concurrently with it.

205. Surveying

Three hours of recitation and two hours of field a week, three quarters.

205a. Theory and use of linear measuring devices, levels, compasses, transits, slide rules, calculating machines; theory of errors; practice in tapes, levels, and transits. Prerequisite, Math. 111a, 112b, 113c.

205b. Land surveying; boundary laws; latitudes and departures; areas and volumes; stadia and planetable; detail map surveys. Prerequisite, Surveying 205a,Math. 201a.

205c. Route surveys; circular, vertical, and transition curves; state plane coordinates; map projections and photogrammetry. Prerequisite, Surveying 205ab and Math. 201b.

301. Analytic Mechanics

Three hours a week, three quarters.

Statics, with special attention to framed structures and the "free body" method of stress analysis; forces in space; friction; center of gravity and moment of inertia; elements of kinetics, kinematics, and dynamics, Prerequisites, C. E. 201bc, Math. 201, Phys. 201, C. E. 301a must be passed before admission to C. E. 301b.

303bc. Mechanics of Materials

Three hours a week, two quarters.

Elastic properties of structural materials; strains and internal stresses in beams, columns, shafts, cylinders, riveted and welded joints; combined stresses; deflection; principal stresses; unsymmetrical bending. Prerequisites, C. E. 307a, Mechanics 301a, and C. E. 301b must have been completed or be taken concurrently.

305. Highway Engineering

Three hours a week, three quarters.

Highway economics and finance; legislation and administration; location and design; materials and types of surfacing; construction machinery and methods. This course is supplemented by laboratory work in C. E. 307ab and C. E. 401a. Prerequisite, C. E. 205.

307ab. Materials Laboratory

Four hours a week, two quarters.

Introduction to the use of testing machines and equipment; strength and deformation measurements of steel and ferrous alloys; properties of materials as determined by test results. Compression, tensile, and bending specimens are tested and appropriate diagrams and reports made by all students.

Methods of manufacture and processing of woods, metals, clay products, and concrete; A S. T. M. Standards.

308c. Stress Analysis

Four hours a week, one quarter.

Theory of simple structures; comparison of analytic and graphic methods of solution; reactions, shears and moments for fixed and moving loads on beams, and trusses; stresses in various types of statically determined framed structures; influence lines; standard loadings for highway and railroad bridges; shop drawings. Prerequisite, C. E. 301b, C. E. 303b.

309ab. Engineering Law

Three hours a week, two quarters.

An elementary course in law in relation to engineering practice, beginning with a brief study of the Constitution of the United States as the supreme law of the land; contracts, agency, real and personal property, sales, mechanics' liens, workmen's compensation laws, and torts; preparing construction contract documents, advertising and awarding contracts; interpretation of contract documents; important applicable court decisions; engineering relations and ethics.

309c. Specifications

Three hours a week, one quarter.

Origin, development, form, and source of specifications; standard materials, equipment and machines; specifications and contract documents of such national bodies as the American Institute of Architects,

the American Railroad Engineering Association, and the American Association of State Highway Officials; practice in writing contract documents; study of court decisions with regard to the rights and obligations of owners and contractors.

401a. Concrete Laboratory

Four hours a week, one quarter.

Design, preparation, and testing of concrete mixes to secure a desired quality of concrete. Test specimens are cured under controlled temperature and moisture conditions. Close attention is given to the influence of the quality and grading of the aggregates and to the other factors that determine the properties of the concrete that ultimately goes into a structure. Various methods of measuring local stresses, such as the SR-4 apparatus, are used.

401c. Soils Mechanics Laboratory

Four hours a week, one quarter.

Classification, control, and soil strength tests to predict suitability of soil for use in earth dams, roads, and foundations, to include specific gravity, combined mechanical analysis, Atterberg limits, permeability, compaction, unconfined compression, consolidation, triaxial and direct shear, and C. B. R. tests.

To be taken concurrently with C. E. 410c. Prerequisites, C. E. 401a, C. E. 410b.

403. Reinforced Concrete Design

Three hours a week, three quarters.

Theory and design of reinforced concrete structures; slabs, beams, retaining walls, combined stress members, columns; design of a concrete warehouse, with special attention to current specifications for design and construction. Prerequisites, C. E. 303bc, C. E. 308c.

405. Structural Steel Design

Two hours of recitation and three hours of drafting a week.

Theory of modern steel structures; analysis of railway and highway bridge trusses, including a complete design of a highway truss; analysis and design of a mill building; theory of statically indeterminate structures, method of work, slope deflection, moment distribution; theory and design of plate girders. Prerequisites, C. E. 303bc, C. E. 308c.

407ab. Hydraulics

Three hours a week, two quarters.

Pressure of water on plane and curved surfaces; stability of dams; flotation; flow of water through orifices and over weirs; pipe friction; flow in series, parallel, and in branching pipes and networks; flow in open channels. Prerequisites, C. E. 301 and 303, Math. 302b.

408c. Hydraulics Laboratory

Two hours a week, one quarter.

Experiments in flow and pressure to illustrate and supplement theoretical treament in C. E. 407a. Logarithmic plotting is extensively used. Prerequisite, C. E. 407a.

409ab. Water Supply and Sewerage

Three hours a week, two quarters.

409a. Water supply — Relationship of water supply and sewage disposal to public health. Consumption of water; quality standards; collection, treatment and distribution of water.

409b. Sewerage — Sewers and sewerage; quantity, characteristics, methods of treatment and disposal of sewage.

Admission to this class is limited to seniors and to the third term of the junior class.

410bc. Soil Mechanics

Three hours a week, two quarters.

Soil physics to include nomenclature and identification, grain shape and soil structure, grain-size classification, soil capillarity, Atterberg limits, permeability, seepage, flow nets, piping, and frost action.

Soil stresses, consolidation, shear strength, stability of slopes, earth dams, bearing capacity, shallow and pile foundations, earth pressure, and soil sampling. Prerequisites, C. E. 303ac, C. E. 301c, C. E. 305c.

425. Senior Essay

Required of all seniors as a prerequisite to graduation. Every member of the class will be assigned to a member of the teaching staff for advice and supervision of his work.

This paper is expected to show that the writer has made a survey of the literature of the subject treated and made such other appropriate studies and investigations as may be necessary to prepare a well-organized, informative, and authentic report. Students are expected to

consult the books in the departmental library on the preparation of engineering reports and to make their papers conform to good practice both as to form and content.

Blank forms on which members of the class must apply for approval of the subject selected and for the assignment of a faculty advisor may be secured at the office of the Department. If the published schedule of dates for the selection of subject, filing outlines and preliminary and final drafts of papers is not complied with, it will be cause for rejection of papers.

Senior essays may not be prepared *in absentia.*

DEPARTMENT OF EDUCATION

The courses in education are designed (1) to meet the usual state requirements for teachers in secondary schools and (2) to present facts concerning our present knowledge of education and the modern problems of education as matters of general as well as professional interest.

Courses in psychology, philosophy and the classics are also offered by this department.

The courses in psychology acquaint the student with the concepts employed and the results of experimental method in the field of general psychology. A course in abnormal psychology is offered for pre-medical students.

Courses in philosophy and the classics are designed to give the student an opportunity to synthesize his entire educational background and outlook on life by learning sound processes of reasoning and by an acquaintance with the great civilizations and thinkers of the past.

Teacher Training

The teacher-training program at The Citadel specifically meets the South Carolina professional certificate requirements for teaching in secondary schools and will in general meet the requirements of other states.

In addition to the professional courses, which are required of all teacher-training students, a certain number of courses in the field of general education are prescribed as well as a specified number of credits in the subject-matter fields in which certification is sought. The Citadel prepares secondary school teachers in the fields of English, French, Spanish, History, Mathematics, and Science.

Education

301ab. Educational Psychology

Elective for juniors. Six quarter hours credit.

The functional application of psychological principles to secondary education with special reference to human growth and development. Study of the significance of heredity and environment, the nature of intelligence, the character and extent of individual differences, the principles of learning and mental hygiene. Education as adaptation, as individual unfoldment, as social adjustment, and as guidance.

302a. Principles and Problems of Secondary Education — I

Elective for juniors. Three quarter hours credit. Education 301 is a prerequisite.

Definition and analysis of the fundamental issues underlying American secondary education. The principles most applicable to the solution of these problems. The aims, curriculum, scope and organization of the secondary school. Secondary education in a changing America. The impact of world conditions upon the secondary school. The American secondary school and the future.

302b. Principles and Problems of Secondary Education — II

Continuation of 302a. Three quarter hours of credit.

401. Methods and Materials of High School Teaching

Elective for seniors. Three quarter hours credit. Prerequisite: six quarter hours credit in Education.

Study of the aims, methods, procedure, and materials employed in high school teaching; organization of subject-matter; motivation and direction of learning; development of attitude, appreciations, and ideals. Classroom presentation of formal materials; conducting informal activities and experiences. Provision for individual differences, measuring educational outcomes. Observation of teaching, reports, discussions.

402. Directed Teaching

Senior elective. Nine quarter hours credit. Required of all who wish to qualify for state certificates. No student will be permitted to enter upon directed teaching who does not have credit for nine quarter hours in courses listed above or their equivalent.

Observation and practice teaching in local high schools under advisory teachers approved by the institution and the division of teacher education in the state department of education. Consistent visitation and supervision by the college. Individual and group conferences for discussion of problems.

403. Seminar in Secondary Education

Three quarter hours credit. For students who have credit for Education 402.

Definition and discussion of principles, methods, and problems related to experiences in directed teaching. Discovery of specific professional interests. Readings, reports, discussions.

407c. Audio-Visual Aids

Three quarter hours credit.

The aims and scope of audio-visual instruction and publicity; the

functions of audio-visual aids in learning; principles and techniques underlying their use; projects and practice in the uses of objects, specimens, moles and pictures, the opaque projector, the motion picture, the film strip, and slides; the radio, television, the public address system, and various types of recorders; selection and care of equipment; administration and supervision of the audio-visual program.

Physical Education

A major is offered in physical education, completion of which will qualify the student for the Bachelor of Science degree. An outline of the course is given on page 63 of the catalogue.

Since most high school coaches and directors of athletics are called upon to teach, the teaching training program is made an integral part of the physical education course at The Citadel, and graduates are qualified for teaching in the field of history or general science.

In the field of physical education the following courses are offered:

301. Introductory Survey of Physical Education

Three quarter hours credit.

An introductory survey of physical education. Historical background, nature, scope and function of physical education. Its aims, objectives and principles are considered. An appraisal of possible positions in the field of physical education is made.

302. Health Education

Five quarter hours credit.

Community, group and personal health problems are considered. Emphasis placed on producing recognition and understanding of health and safety factors in relation to the school situation.

303. Individual Physical Education

Three quarter hours credit.

Principle and practices in the conditioning and care of athletes; the medical examination; safety in athletics; prevention of injuries; methods of massage and taping; therapeutic aids. Kinesiological analysis of the mechanical action of bones and muscle groups. The handicapped student; diagnosis and assignment of special activities within, and outside of the regular class work.

304. Gymnastics, Tumbling, and Recreational Sports and Games

Three quarter hours credit.

Recreational and educational possibilities; aims and objectives of group, institutional, and community programs. Techniques; practices; adaptation of activities to interests and abilities.

305. Basketball and Tennis

Three quarter hours credit.

Basketball: comparative study of defensive and offensive systems of team play; development of basic individual skills and techniques; teaching and coaching, rules and officiating.

Tennis: drill in mechanics of grips, strokes, and services; fundamentals of singles and doubles court play; strategy and psychology of competition; teaching techniques.

401ab. Organization and Administration of Physical Education

Six quarter hours credit.

Organization: delegation of authority and responsibility; use of the democratic method; formation of teams, tournaments, and leagues; program aims and objectives; curriculum building; course construction; lesson planning; special methods in instruction; class management and scheduling.

Administration: selection, purchase, and care of equipment; office policies and systems; budgeting and finances; publicity; motivating attendance; team and game management.

402. Baseball and Track

Three quarter hours credit.

Baseball: team offensive and defensive organization; practice in fundamental individual baseball skills and the elements of position play; teaching and coaching; rules, interpretation, and officiating.

Track: introduction to a wide variety of track and field events; study of principles and techniques; practices in basic skills; teaching and officiating; the organization and management of track meets.

403. Football

Three quarter hours credit.

Analysis and evaluation of offensive and defensive tactics, formations, and plays; individual techniques and fundamental skills in position play; teaching materials and methods; coaching; rules and rule interpretations; practice in officiating.

406. Intramural Sports Program

One quarter hour credit.

Actual organization, management, and supervision of intramural activities at The Citadel; officiating; care of equipment; scheduling; keeping records.

Psychology

303ab. General Psychology

Elective for juniors and seniors. Required of Pre-Medical students. Six quarter hours credit.

The course aims to present the more generally known and accepted facts of modern experimental psychology with the purpose of leading the student to approach objectively the problem of understanding himself and other people, especially in connection with the adjustments necessary between individual needs and demands of the environment.

304c. Abnormal Psychology

Required of pre-medical students. Three quarter hours credit.

Structural and functional disorder connected with sensation, perception, and association. Theories of personality. Discussion of the common neuroses and psychoses.

305. Social Psychology

Three quarter hours credit. Prerequisite: Psychology 303ab.

A study of the individual in relation to his social environment with special attention to group behavior, social motivation, and individual adjustment.

Classical Languages

101. Elementary Greek

Fundamentals of the Greek language. Recommended for students preparing for the study of medicine or theology.

201. Intermediate Greek

Continuation of Greek 101. Selections from Xenophon, Plato, and the New Testament.

101. Elementary Latin

Latin grammer and translation. Course varies with the background of the students. Recommended for pre-law students.

201. Intermediate Latin

Continuation of Latin 101. Cicero, Livy, and Horace.

Sociology

The following courses in the field of sociology are numbered in their logical order of sequence. However, no course is prerequisite for any other that is offered. All courses are twelve weeks in length and carry three quarter hours credit. They are open to juniors and seniors only.

301. Introduction to Sociology

A study of the principles of sociology, embracing the factual knowledge concerning the history of culture with particular stress laid upon the social heritage, the formation and functioning of social groups, intergroup relationships, and group conflicts.

302. Social Disorganizatiton

A study of the breakdown of society in its various forms with consideration of the causation as well as the resultant problems. Special emphasis is given to contemporary problems such as the broken family, juvenile delinquency, unemployment, and individual personality maladjustment.

303. The Contemporary American Family

A frank and comprehensive analysis of the problems confronting the modern American family with case studies treating the various phases of conflict within the family.

401. Criminology

A study of crime, its causes, conditions, prevention, and treatment. Theoretical views and hypotheses are supported by concrete facts. This method assures the student that any theory proposed or upheld is based upon realities and exact observation.

402. Social Anthropology

Social anthropology is concerned with the nature of social organization and the processes of social interaction characterizing different socities. The course stresses culture in relation to the society which is the creator and bearer of that culture.

Fine Arts

The following courses are designed primarily for prospective teachers who need credit in the Fine Arts for a teaching certificate.

301a. Music Appreciation

Five quarter hours credit.

A non-technical course proposing to enhance the student's understanding and enjoyment of music by a two-fold approach: first, to gain fundamental knowledge of style, content and form of the more outstanding works of the great composers; and, second, to study the evolution of musical art up to the present time. Particular emphasis is placed upon the latter.

301b. Art Appreciation

Five quarter hours credit.

Lectures on the history and appreciation of art with a view of developing an appreciation of art techniques and art qualities.

DEPARTMENT OF ELECTRICAL ENGINEERING

In 1941 the Board of Visitors authorized the establishment of a Department of Electrical Engineering at The Citadel. The department was established to meet the needs of many students who are attracted to the type of education which The Citadel offers, but who were formerly compelled to go elsewhere to secure training in the field of their special interest.

A considerable part of the normal curriculum in electrical engineering had long been offered by the Department of Physics for the benefit of students in physics and in civil engineering. Upon the founding of the Department of Electrical Engineering, this work was expanded into a curriculum in accord with the offerings of the leading engineering colleges, and the laboratory facilities were augmented to provide training leading to the degree of Bachelor of Science in Electrical Engineering. Before any instruction had been given in the advanced phases of the program, all of the men enrolled in it were withdrawn for service in the armed forces and the development of the department was arrested until after the close of the war.

Since the graduation of the first class of eight men in September, 1947, the growth in the facilities, enrollment and personnel of the department has been steady. In December, 1949, eighty Electrical Engineering students in the junior and senior classes at The Citadel were admitted to Student Membership in the American Institute of Electrical Engineers, thus marking the first phase in the professional recognition of the curriculum.

It is the purpose of the department to prepare men for professional work or graduate study in the field of electrical engineering and to give them training in as many of the elements of a broad general education as can be included in a program of professional study leading to the degree of Bachelor of Science in Electrical Engineering.

All of the laboratories and equipment of the Department of Physics are available for use in the Department of Electrical Engineering. Several additional laboratories and classrooms are devoted exclusively to its use. Two dynamo laboratories are located on the first floor of Bond Hall. They are equipped with machine benches supplied with outlets from a plug-type distributing panel to provide flexible power connections. Direct current is supplied from motor-generator units and a bank of heavy duty storage batteries tapped to provide a variety of potentials.

A polyphase transformer bank within the laboratory is wired to a junction panel to allow quick and ready connection for a wide range of

single-phase, two-phase and three-phase voltages to supplement the laboratory supply lines for special uses.

The machines are of moderate size to allow the student to have intimate contact with them in their operation and to eliminiate the necessity of the ready-made connections, intricate switch gear, and cumbersome metering circuits incident to the operation of heavy machines. The student can therefore be required to make his own connections and operate and control the machines without assistance from the instructor. With the exception of a few units designed particularly for the laboratory, the machines are commercial units of leading American manufacture. They represent all modern types of small A. C. and D. C. equipment in wide use. All necessary meters, instruments, load components, control equipment, tachometers, oscillographs and accessories for these machines are conveniently accessible.

The electronics laboratory and the electrical measurements laboratory are located on the first floor of Bond Hall. Each laboratory has an adequate supply of modern apparatus in good repair. Multiple electric outlets at each table, are provided in each laboratory. Photographic facilities are provided in two dark-rooms.

The machine shop on the same floor contains modern machine tools with individual motor drives, woodworking tools, benches, cabinets, and spray-painting equipment. Its facilities are adequate for construction of special apparatus as well as instrument repair and maintenance.

The courses required in the freshmen and sophomore years are described under the departments in which they are given.

301. D. C. Circuits and Machines

Required of students in electrical engineering. Lectures and recitations. Five hours per week, eighteen weeks.

A course in direct current electrical engineering including flux, torque, current, electromotive force and speed relations in self-regulating machines; control of motors and generators; power losses and efficiency of machines; commutation and armature reaction; magnetic and electric circuit calculations.

302. A. C. Circuits and Machines

Required of students in electrical engineering. Lectures and recitations. Five hours per week, eighteen weeks.

A course in alternating current electrical engineering, involving the analytical and vector treatment of harmonically varying electromotive forces, currents, and power; in any combination of resistance, induc-

tance and capacitance. Calculations of balanced and unbalanced polyphase circuits are emphasized. Construction, theory, design, and operation of alternators, motors, transformers, converters, and control equipment are studied.

303. Dynamo Laboratory

Required of students in electrical engineering. Four hours of laboratory work per week, eighteen weeks.

A laboratory course to accompany E. E. 301.

304. Alternating Current Machines

Required of students in electrical engineering. Laboratory work. Four hours per week, eighteen weeks. A laboratory course to accompany E. E. 302.

401a. Electrical Measurements

Required of students in electrical engineering.

Lectures and recitations. Five hours per week, one quarter. Modern methods of measuring current, resistance, electromotive force, inductance, capacitance and magnetic quantities. The calibration of electrical instruments is emphasized.

402. Electron Tubes

Required of students in electrical engineering. Lectures and recitations. Five hours per week, two quarters.

Characteristics of electron tubes and their functions as detectors, amplifiers, modulators, oscillators, and rectifiers. Photo-cells, gas-filled tubes, and cathode ray tubes.

403a. Electrical Measurements Laboratory

Required of students in electrical engineering. Four hours of laboratory work per week, one quarter.

Laboratory measurements to accompany E. E. 401a.

404. Electron Tubes Laboratory

Required of students in electrical engineering. Four hours per week, two quarters.

Laboratory course to accompany E. E. 402.

405. Applications of Electron Tubes

Required of students in electrical engineering. Lectures and recitations, five hours per week,, one quarter.

Radio tubes, photo-cells, thyratrons, ignitrons, magnetrons, and miscellaneous gas-filled tubes in industrial applications.

406a. Advanced A. C. Theory

Required of students in electrical engineering. Lectures and recitations, five hours per week, one quarter.

Treatment of transients and oscillatory circuits by the use of differential equations; analysis of complex A. C. waves; complex variable solutions of A. C. circuits; unbalanced polyphase circuits; applications of electrical solutions to mechanical systems.

407. Electronics Laboratory

Required of students in electrical engineering. Laboratory work. Four hours per week, one quarter.

To accompany E. E. 405.

408b. Transmission Lines

Required of students in electrical engineering. Lectures and recitations. Five hours per week, one quarter.

Transmission lines with lumped constants. Hyperbolic functions applied to the treatment of the long transmission line with distributed parameters, wavefilters networks, equivalent circuits. Transformations in circuit solutions. Elements of A. C. design.

409b. Heat Engines

Required of electrical engineering students. Elective for students in other departments. Prerequisite, Physics 301 and calculus. Five hours a week, one quarter.

Principles of energy transformation in steam engines, internal combustion engines, air compressors, and refrigerating apparatus. Fundamental thermodynamics, applied to analysis of such machines.

410c. Power Plant Engineering

Required of seniors in electrical engineering. Lectures and recitations, five hours per week, one quarter.

A survey of power plant design and operation. Economic factors in design, construction, operation and power distribution.

411. Introduction to Electrical Engineering

Required of seniors in civil engineering. Lectures or recitations, two hours per week. Laboratory work, two hours per week, three quarters.

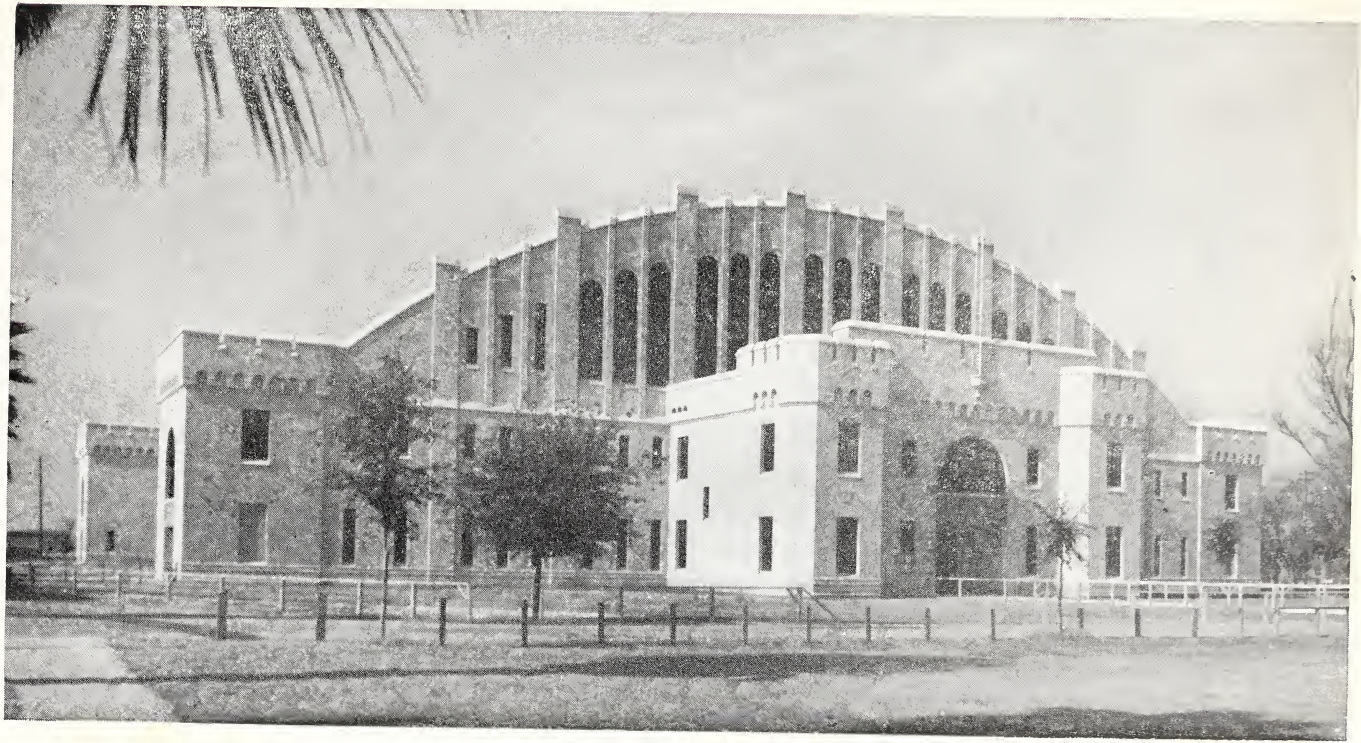
An elementary course treating the material of E. E. 301 and 302 less

fully. The course is designed to give students in civil engineering an acquaintance with the fundamentals of electrical engineering. Familiarity with commercial machines is gained by operation and testing in the laboratory.

425. Senior Essay

Required of seniors as a prerequisite to graduation.

A report based upon a survey of the literature in some phase of electrical engineering, supported by such investigations as may be needed to complete a paper of professional character, acceptable to the department. Each senior student will be assigned to a member of the department for assistance and supervision in the choice of a subject and the organization of the material. At least four hours a week during the second and third quarters will be devoted to this work.



THE ARMORY

DEPARTMENT OF ENGLISH

The more specific objectives of this department are to make the student proficient in the use of his own language and to develop in him, through the the directed study of the great literature of England and America, not simply an understanding and appreciation of the masterpieces read, but particularly an ability on his own part to approach literature independently with some confidence of recognizing both its art and its meaning.

The more general objectives are the deepened insight into life through the wide human experience afforded by literature, and the broad cultural background which a knowledge of one's language and literature provides.

English is required of all students in freshmen and sophomore years, and may be chosen as a major course of study in junior and senior years.

A student who elects English as his major course of study is required to take English 203 (The English Language), in addition to 201, in his sophomore year. If, for some legitimate reason, he cannot take 203 in his sophomore year, he must take it in his junior year. In both the junior and senior years he must take two full-year courses, or the equivalent, in English. English 401 (Shakespeare) and English 304 (American Literature) are required courses; otherwise the student is free to choose from the courses offered by the Department in any given year. It should be noted, however, that 205a, b, c (Public Speaking), 315a, b, c (World Literature), and 405a, b (Creative Writing) are not courses which fulfill requirements for major work.

Those taking English as a major course of study are allowed six electives in their junior and senior years in order that they may choose subjects pertinent to their anticipated careers. Thus it is possible to provide students with preliminary training for a number of professions. These electives should be chosen, however, only in consultation with the Department of English.

101x. English for Spanish-speaking Students

This is actually a course in English as a foreign language. It is taught in the Department of Modern Languages with the cooperation of the Department of English.

It is designed to make possible a successful education at The Citadel for the Spanish-speaking students who have mastered too little English to succeed otherwise. Such students take this course for credit in

their general Modern Language requirement in the college curriculum. At the same time they take the regular course in freshman English.

101. Composition and Literature

Required of freshmen who, on the basis of nationally approved tests, show some real understanding of the fundamentals of the English language.

The course seeks the development of the basic skills of writing and reading, and some development of the critical faculty as applied to literature.

102. Composition and Literature

Required of freshmen who, on the basis of tests, show considerable lack of understanding of the fundamentals of the English language.

This is the same course as English 101, but it provides an additional class hour each week so that there may be more time for the mastery of fundamentals.

201. A Survey of English Literature

Required of all sophomores.

The purpose of the course is to reveal to the student the development of English literature from the earliest times to the end of the nineteenth century as it is seen in the selected works of thirteen masters, and to direct him to a clear understanding and sound appreciation of the masterpieces read. During the course he writes frequent themes under the stimulus of the works studied.

203a. The English Language: History

Required of sophomores majoring in English. Open as an elective to other sophomores, juniors, and seniors

An introductory survey of the development of Modern English, beginning with the Indo-European background and including the more notable morphological and phonological changes from the Old English period to the modern period.

203b. The English Language: Grammar

Required of sophomores majoring in English. Open as an elective to other sophomores, juniors, and seniors.

Historical and descriptive grammar with emphasis upon standard current English usage.

203c. The English Language: General Semantics

Required of sophomores majoring in English. Recommended as an elective to other sophomores, juniors, and seniors.

A psychological approach to the study of language as an abstracting process employing a system of verbal symbols for informative, directive, and affective purposes.

205ab. Public Speaking

Open to sophomores, juniors, and seniors.

Through the study of the principles of speech-making and through constant practice in reading and speaking this course aims to acquaint the student with the methods of preparing speeches and of delivering them simply and directly. The speeches will deal with current public questions. Each student is afforded an opportunity to record and study his own voice in an effort to eliminate any undesirable voice or speech traits.

205c. Argumentation

Open to sophomores, juniors, and seniors.

Training in reasoning, in the composition of argument both written and spoken; practice in the delivery of argument and in group discussion on current problems. This course is recommended for pre-legal students.

301ab. Medieval Narrative: Chaucer

Open to juniors and seniors.

Designed to give an introduction to Chaucer's language, narrative skill, and mastery of poetic forms, this course emphasizes reading in the original "The General Prologue" and representative stories from *The Canterbury Tales, Troilus and Criseyde,* and some of the shorter lyrics.

301. Medieval Narrative: Non-Chaucerian

Open to juniors and seniors.

Such non-Chaucerian narratives as *The Pearl, Havelock the Dane, Tristram and Isolde, Aucassin and Nicolette,* selections from Gower, Langland, and others are read in translation for content, for revelation of cultural and social traditions, and for literary forms of the Middle Ages.

303a. Seventeenth Century Prose

Open to juniors and seniors.

A study of the prose as represented by Bacon, Donne, Burton, Walton, Browne, and Milton.

303bc. Seventeenth Century Poetry

Open to juniors and seniors.

A study of the poetry as represented by Donne and the metaphysical poets, by Jonson and "his sons," and especially by Milton. *Paradise Lost* is read entire.

305ab. Restoration and Eighteenth Century: Prose and Poetry

Open to juniors and seniors.

Emphasis is placed upon the major writers of prose and poetry beginning with Dryden, including Pope, Swift, Addison and Steele, and ending with Boswell and Johnson. The minor poets of the period and contemporary departures from the classical mode are provided for in lectures and illustrative readings.

305c. Restoration and Eighteenth Century: Drama

Open to juniors and seniors.

As a survey of Restoration and Eighteenth Century drama, ten plays representative of heroic drama, comedy of manners, comedy of humors, sentimental comedy, comic opera, and tragedy are read for content, dramatic theory, and fashions in social thought and conduct.

307ab. The Romantic Movement

Open to juniors and seniors.

This course intends to show the changing attitudes toward life and art in the literature of the early Nineteenth Century, and to determine what the term *romanticism* implies in its application to each of the Romantic writers. The first quarter will trace the beginnings of Romanticism and concentrate on Wordsworth and Coleridge. The second quarter will present the poetry of Byron, Shelley, and Keats.

307c. The Romantic Movement

Open to juniors and seniors.

This course deals with the prose of the Romantic period. The essayists, Lamb, Hazlitt, and DeQuincey, will be emphasized, and the Romantic Novel will be examined.

309ab. Victorian Poetry and Prose

Open to juniors and seniors.

A study of the important poets of the period from 1830 to 1900, with

emphasis upon Tennyson and Browning; and of the prose as represented by Carlyle, Arnold, and Huxley.

309c. Modern British and American Poetry

Open to juniors and seniors.

The aims of this course are to give the student an understanding of selected poets of the Twentieth Century, to present recent poetry as an expression of the life and thought of modern society, and to provide critical standards for future reading. Three or four outstanding modern poets will be studied intensively.

311ab. English Drama

Open to juniors and seniors.

The effort is here made to trace the course of English drama from its origin in medieval times to the beginning of modern drama in the middle of the Nineteenth Century. Representative plays are studied in detail.

311c. Modern British and American Drama

Open to juniors and seniors.

A detailed study of a few representative plays to show the major trends in British and American drama since the time of Ibsen.

313. The English Novel

Open to juniors and seniors.

This course aims to give the student some idea of the antecedents of the English novel, to acquaint him with the work of the best English novelists from Defoe through Hardy, and to teach him how to read a novel intelligently. Twelve novels will be read and discussed.

315a. World Literature

Open to juniors and seniors.

The purpose of this course is to introduce the student, through standard translations, to the basic masterpieces of the Greek Classics, with special emphasis on the Greek Epic and Greek Drama.

315b. World Literature

Open to juniors and seniors.

This course presents Roman and Italian literature in translation, with the greater attention given to the Augustan Age and to Dante.

315c. World Literature

Open to juniors and seniors.

The aim of this course is to give the student an introduction to selected masterpieces of French, German, and Russian literature in translation from the Renaissance through the Nineteenth Century.

401. Shakespeare

Open to juniors and seniors. Required of those who major in English.

The course seeks to give the student an insight into the greatness of Shakespeare as dramatist and illuminator of life. Some twelve plays — comedies, histories, tragedies, and dramatic romances — are studied.

403. American Literature

Open to juniors and seniors. Required of those who major in English.

The aims of this course are to acquaint the student with the best writing of the best American authors from colonial times to the present, to indicate to him the intrinsic literary merits of this writing, and to show him how it reflects the development of the culture of this country.

405a. Writing the Short Story

Open to juniors and seniors.

Analysis of short stories, followed by practice in writing them.

405b. Writing Poetry

Open to juniors and seniors.

Analysis of poems, followed by practice in writing them.

N. B. Some of the advanced courses will not be offered every year.

425. Senior Essay

Required of all seniors as a prerequisite to graduation.

A research paper of scholarly thoroughness and exactitude.

DEPARTMENT OF HISTORY

The Department of History endeavors to give the student an acquaintance with and an appreciation of our heritage; to enable him to see causes and effects, contrasts and comparisons as shown in the rise of modern civilization; to give him an accurate knowledge of the history of his own country and to familiarize him with its institutions and the democratic ideals which have influenced American life; to acquaint the student who elects this subject with the standard works in its various fields and to prepare him to pursue graduate work.

In the sophomore year students taking the History or Political Science Course must take History 202. Students electing History as a major are required to take History 301, 401bc, and three full year courses in History, selected from those offered in the junior and senior years with the approval of the Head of the Department. They must also take two years of a modern language, Economic Principles, and two specified courses in Political Science. Other electives must be selected from courses in related subjects recommended by the Department. For further details see the tabulation of the curriculum for the History Elective under the heading "Courses of Study".

Courses marked with an asterisk (*) are offered in alternate years or on demand.

102. A Survey of American History

This survey of American History from the period of discovery to the present aims to give the student an understanding of contemporary civilization in the United States through a study of the historical experience of the American people. After a brief treatment of the growth of colonial self-government, the course emphasizes the causes of the Revolution, the framing of the Constitution, the development of political parties, sectional conflict, economic progress and problems, and foreign relations. A special effort is made to understand the nature of American democracy and to assess the role of the United States in world affairs from 1789 to the present.

202. A Survey of European Civilization since 1500

Required of all freshmen.

This course attempts to present the historical background of contemporary civilization, emphasizing those movements and developments which have had the most enduring influence and which help to clarify the problems of the present. It stresses the evolution of national states,

the growth of representative and democratic institutions of government, the continuing progress of science, art, and literature, the development of modern capitalism, and the origins of the international conflicts of our times. Throughout, an effort is made to present history in its broadest and, at the same time, its more practical connotations.

301. History of England

Required of all History majors.

This history of England from its origin to the present time gives special attention to the formation of the English constitution in the Middle Ages, to the growth of the limited monarchy, and to the evolution of Parliament. The characteristic institutions of the English political system and their influence upon other poeoples are emphasized. Throughout the course the social and economic factors which conditioned political changes are stressed.

**302c. Studies in Biography*

This course is designed to show how certain Europeans or Americans were the products of the times and societies in which they lived and how in turn they affected their own times. A study is made of four or five individuals significant for their political, economic or cultural leadership. Students are required to read a biography of each of the individuals selected for study. The course is conducted largely on the basis of discussion, but a number of informal lectures are given.

**303. The United States since 1900*

This survey of American social, cultural, economic and political development since 1900 emphasizes the increasing influence of the United States in world affairs, important political and economic changes, and the dominant cultural trends of the period.

**304. European History since 1870*

The course stresses the development of democracy in the leading European states before 1914, the growth of colonial empires, the causes of World War I, the efforts toward international organization, the rise of totalitarian states, and the origins of World War II.

402ab. History of American Diplomacy

This course emphasizes the ideals and principles which have actuated American diplomacy and the controversies which have arisen with other nations; the problems that have grown out of commercial and territorial expansion; and the international complications brought on by the Civil War, isolation, and intervention.

403. The American Civil War and Reconstruction

The political, economic and social developments of the period will be emphasized, with some attention given to the military aspects of the war.

**404ab. Hispanic American History*

This is a survey of the economic, cultural and political development of Republican Hispanic America. While the twenty republics are studied as a unit, the individuality of each is sufficient to warrant special attention. Therefore the student is encouraged, in his collateral reading, to concentrate on some one country.

**405c. The Era of the French Revolution and Napoleon*

This course gives a detailed analysis of the causes of the Revolution, followed by a survey of the principal events of the period, stressing the innovations of the Revolutionary governments, the causes of Napoleon's rise to power, his achievements in France and in Europe, and the reasons for his eventual downfall.

**406. History of Colonial America*

The purpose of this course is to give the student a more detailed treatment of the foundations of American civilization than is possible in History 102. The motives of colonization, the evolution of self-government, the extension of the frontier, economic, social and religious life, the causes of the Revolution and the problems of the Confederation are studied.

**407. History of the Ancient World and the Middle Ages*

A general course on the history of the Greeks, the Romans, and the people of the Middle Ages, their wars and political institutions, their economic and social life, their cultural and intellectual achievements. Covering an earlier period than that treated in History 202, it makes possible a fuller understanding of the origins of modern civilization.

**408c. The New South*

A survey of the principal political, economic and social developments of the South since 1877. Emphasis is placed upon the development of contemporary regional problems and their impact on American life.

**409c. Studies in American Economic and Social History*

A historical treatment of topics in the social and economic history of the United States, selected for their past or present significance.

425. Senior Essay

Required of all seniors as a prerequisite to graduation.

The student is given an introductory acquaintance with the history

of historical writing, the sources of history and the methods of the historian before he selects the topic for his Senior Essay. Through the essay he gains practical experience in the use and organization of historical materials. Prospective candidates for graduation in June are required to have the outline of the essay, together with the supporting bibliography, approved by January 15. The first formal draft of the essay must be submitted not later than March 15.

GEOGRAPHY

310. Elementary Geography

An introductory course dealing primarily with physical phases of geography and their relationship to man. The principles of geography are applied to the study of selected regions throughout the world.

311. Economic Geography

The study of the geographic foundations of economic activities in different parts of the world.

411. Historical Geography of the United States

A survey of geographic influences in American history.

DEPARTMENT OF MATHEMATICS

In addition to the major elective work offered in the Mathematics Department, courses are planned to meet the needs of students who may wish to do major work in any of the numerous fields of specialization offered by the college.

Mathematics is a required first year course. Two freshman courses are offered. One is required of students who expect to do major work in the field of the sciences and the other is required of students who expect to do major work in the field of the arts, or in Business Administration.

To students majoring in Mathematics, the department offers a program which will qualify them to teach in secondary schools, and to enter graduate schools in full standing. Standard mathematical techniques are developed in all courses taught, but students are encouraged in arriving at results through reasoning processes rather than through routine subsititutions.

10. Elementary Plane Geometry

Required of all freshmen who do not present high school credit for plane geometry. Five hours a week for one quarter.

The essential geometric constructions, theorems, and methods of proof are deveolped in this non-credit course.

102. Freshman Mathematics

Required of freshmen in the Arts and Business Administration electives. Three hours a week for three quarters.

This course is planned for students who do not expect to take mathematics above the freshman level. It includes a study of selected topics in algebra, and introduction to statistics, and plane trigonometry.

111a. College Algebra

Required of freshmen who expect to do their major work in Chemistry, Civil Engineering, Electrical Engineering, Mathematics, or Physics. Five hours a week for one quarter.

The essential topics of college algebra are studied, and practice is given in the solution of all types of problems which arise.

112b. Trigonometry

Prerequisite, Mathematics 111a. Required of freshmen who expect to

do their major work in Chemistry, Civil Engineering, Electrical Engineering, Mathematics, or Physics. Five hours a week for one quarter.

This is a full course in trigonometry covering all topics essential to work in analytical geometry and the calculus.

113c. Plane Analytical Geometry

Prerequisite, Mathematics 112b. Required of freshmen who expect to do their major work in Chemistry, Civil Engineering, Electrical Engineering, Mathematics, or Physics. Five hours a week for one quarter.

The primary aim of this course is preparation for study of the calculus. The work includes a thorough study of the straight line, the conics, polar co-ordinates, and parametric equations.

201. The Calculus

Prerequisite, Mathematics 113c. Required of students majoring in Chemistry, Civil Engineering, Electrical Engineering, Mathematics, or Physics. Five hours a week for three quarters.

A thorough study of the differential and integral calculus through series expansions. Ample drill in differentiation and integration is followed by much problem work from fields of engineering and physics.

301a. Solid Analytical Geometry and Intermediate Calculus

Prerequisite, Mathematics 201. Required of students majoring in Electrical Engineering, Mathematics, or Physics. Three hours a week for one quarter.

The course in solid analytical geometry is followed by a study of partial differentiation and multiple integrals, and their applications in solving problems.

302bc. Differential Equations

Prerequisite, Mathematics 201. Required of students majoring in Electrical Engineering, Mathematics, or Physics. Three hours a week for two quarters.

A study of the principles and devices used in solving differential equations. Numerous problems of application from the fields of engineering and physics are included.

303. Theory of Equations

Prerequisite, Mathematics 201. Required of students majoring in mathematics. Three hours a week.

Topics studied in this course will include solutions of cubic and quartic equations, approximations of irrational roots, determinants, constructions with ruler and compass, and symmetric functions.

401. Advanced Calculus

Prerequisite, Mathematics 302. Required of students majoring in Mathematics. Three hours a week.

Such topics as line integrals, vector calculus, Bessel's functions, partial differential equations, Fourier's series, etc., and their physical applications will be studied.

425. Senior Essay

Required of all seniors as a prerequisite to graduation.

A study of some assigned topic in a field suited to the student's talents and preparation, supervised by a member of the department.

The following courses will be given when the demand is sufficient:

305. Modern Geometry

Prerequisite, Mathematics 201.

307. Higher Geometry

Prerequisite, Mathematics 201.

403. Functions of a Complex Variable

Prerequisite, Mathematics 302.

DEPARTMENT OF MILITARY SCIENCE AND TACTICS

The Citadel requires all cadets to complete satisfactorily the four-year course of instruction of the Senior Division R.O.T.C. whether or not they are formally enrolled in the Reserve Officers' Training Corps. Cadets who are formally enrolled in and successfully complete the R.O.T.C. program and four years of education at college or university level are eligible for commissions in the Officers' Reserve Corps.

The mission of the Senior Division, R.O.T.C. is to produce junior officers who have the qualities and attributes essential to their continued development as officers in the Armed Forces of the United States.

The R.O.T.C. program consists of two parts, the basic course of two years duration and the advanced course of two years duration, with a camp which is specialized for a particular arm or service. The summer camp is of at least six weeks duration and is obligatory for all cadets formally enrolled in the advanced course. Cadets attend summer camp at the end of the junior year.

The Citadel offers advanced courses leading to eligibility for reserve commissions in Infantry, Artillery, Ordnance Corps and Corps of Engineers.

The physical examination required for admission to the college is also a prerequisite to enrollment in the R.O.T.C. (See general information.)

Cadets entering the freshman class pursue first year basic course except in special cases indicated below:

Applicants for enrollment who have had previous R.O.T.C. training must present to the Registrar, The Citadel, a copy of their record as an R.O.T.C. student (NME Form 68) attested by the Professor of Military Science and Tactics of the school or college previously attended. Credit will not normally be granted unless student is admitted with advanced academic standing. The decision as to credits to be given for such work will rest with the authorities of The Citadel. Veterans of World War II who enroll as cadets will receive credit toward advanced R.O.T.C. standing as determined by the Professor of Military Science and Tactics.

Many outstanding cadets of The Citadel are commissioned in the Regular Army under provisions of the Distinguished Military Student Program.

DEPARTMENT OF MODERN LANGUAGES

It is the purpose of the Department of Modern Languages that students majoring in this subject shall receive a thorough knowledge of one language, written and spoken, a reasonable degree of competence in a second, and a good understanding of the important writers and literary developments of one or both of the civilizations which these languages represent. The aims of the department are both to develop cultural understanding and to prepare the student to follow a career requiring linguistic skill or literary knowledge. He is also prepared to do graduate work in a language if he so desires.

In a world being rapidly drawn together by improved means of communication, though the parts are still sharply differentiated in language, customs, and ways of thinking, it is important that an educated man should not be reduced to indirect and highly defective means of contact with all cultures other than his own. One cannot learn all languages, but certain ones such as French, German, and Spanish, are widely used outside the countries where they originated and are keys to a better understanding of civilization and mankind. For scientific research and for many commercial and professional positions, knowledge of languages may prove valuable or even essential. It is needed alike in war and peace, but its influence is for peace, since it tends to bring closer that understanding which ought to unite educated people of all nations.

Students who elect languages as their major field must satisfactorily complete seven courses in languages, including, for one language, at least two courses above the intermediate level. They must complete the Survey of French Literature. The exact sequence of their language courses may vary according to the language chosen for their major work and the point at which their college work in languages was begun. Students wishing to take a language course as an elective may take any course for which they have done the prerequisite work.

In courses above the intermediate level, the work of each quarter is a unit and credit will be given for its successful completion.

French

101. Elementary French

For students who elect French and have entered The Citadel with less than two units of that language.

The reading and writing of simple French; dictation; elementary

conversation with drill in pronunciation; the fundamentals of French grammar.

201. Intermediate French

For students who have completed French 101, or have entered The Citadel with two or three units of French.

French literature is introduced by readings from nineteenth and twentieth century authors. Composition and conversation are based on the reading material. Grammar review to correct faults in usage.

301. Introductory Survey of French Literature

Required for the Modern Language elective course. Open to students who have completed 201.

Selected reading from representative authors forms a general survey of French literature from its beginnings into the nineteenth century. The student is encouraged to read extensively, and makes reports in French, with discussion.

The following courses will not all be given in any one year. They will be given when there is sufficient demand, and alternated according to the wishes and needs of the students.

401. French Composition and Conversation

Open to students who have completed French 301 with a passing grade, or who have completed French 201 with a grade of A or B.

A course in composition and conversation, with grammar review where needed, designed to produce fluency and accuracy in the use of spoken and written French. To develop these qualities, and as training in literary appreciation, students are introduced to an elementary adaptation of the *explication de textes.*

403. Eighteenth Century French Literature

Prerequisite: French 301.

The development of philisophical thought in the eighteenth century is traced through the writings of Montesquieu, Voltaire, and Rousseau. The beginning of Romanticism is shown in Rousseau and other writers. Collateral reading and reports. Lectures in French.

407. Nineteenth Century French Literature

Prerequisite: French 301.

French Literature from Chateaubriand to Zola and Anatole France. The Romantic, Realistic, and Naturalistic movements, with special em-

phasis on the works of Balzac, Hugo, and Flaubert. Lectures in French, discussion, outside reading.

409. The Classical Period of French Literature

Prerequisite: French 301.

Study of the literature of the seventeenth century, in which France made its most distinctive and in many respects its finest contribution to the world's literature and culture. Especial attention is given to the drama of Corneille, Racine, and Molière.

German

101. Elementary German

For students who elect German and have entered The Citadel with less than two units of that language.

Pronunciation and the elements of German grammar. Written and oral exercises; translation of simple German into English.

201. Scientific German

For students taking the Chemistry, Physics, or Pre-Medical course. Prerequisite: German 101 or two entrance units.

The grammar study of the first year is continued; the greater part of the time is devoted to the translation of texts in various sciences. Special stress on sentence structure and word-building.

203. Intermediate German

Prerequisite: German 101 or two entrance units.

Completion and review of elementary grammar, reading of texts from German literature, and conversation.

301. German Literature of the Nineteenth Century

Prerequisite: German 203 or 201.

Representative work of outstanding novelists and dramatists will be read, with discussion of the literature of the period. Assigned reading and reports.

401. Goethe's Faust

This, the greatest of Goethe's dramas, will be studied in connection with his life and from the point of view of its message to the modern world. An interpretation of the drama, its genesis and growth. *Faust,* Part I and selections from Part II. *Faust das Puppenspiel,* and its relation to Goethe's *Faust.* Lectures, reading, and reports.

Spanish

101. Elementary Spanish

For students who elect Spanish and have entered The Citadel with less than two units of that language.

Essentially a drill course in the reading, writing, and speaking of simple Spanish.

201. Business Spanish

Primarily for students in Business Administration. Prerequisite: Spanish 101 or two entrance units.

An intermediate course, intended to develop the student's understanding of oral and written Spanish. Texts deal with Spanish America. Some work in business terminology and correspondence.

203. Intermediate Spanish

A continuation of elementary work, with reading of the works of nineteenth-century or contemporary writers. Classroom composition and conversation. Credit is not given for both Spanish 201 and Spanish 203.

301. Spanish Literature of the Golden Age

Prerequisite: Spanish 203 or 201, or four entrance units or equivalent competence in the language.

The literature of the late sixteenth and the seventeenth centuries, the age which produced the characters of Don Quixote and Don Juan. Works of Cervantes, Lope de Vega, Tirso de Molina, Calderon, and others are studied. Given in alternate years with Spanish 303.

303. Spanish-American Literature

Prerequisite: Same as for Spanish 301. Given in alternate years with that course.

Leading works from Mexico and Central and South America are studied, with both individual and class reading.

All Modern Languages

425. Senior Essay

Required of all seniors majoring in modern languages, as a prerequisite to graduation.

This will usually, though not necessarily, be on a literary theme. It involves the ability to conduct research in material in the student's major language, and to present it in acceptable scholarly form.

DEPARTMENT OF PHYSICS

It is the purpose of the Department of Physics to offer to all students at The Citadel a fundamental course in one of the basic physical sciences, to afford to pre-medical students an adequate preparation in physics for admission to the best medical schools, and to offer to students specializing in other departments such advanced courses in physics as are necessary to meet their needs. To students taking their major work in the Department, it offers a program of courses sufficient to enable them to enroll as graduate students in full standing at the leading universities, or to fill positions as assistant physicists in the government service and in industrial laboratories.

The rooms of the department are located on the first and second floors at the east end of Bond Hall. On the second floor are the offices of the department, a lecture room seating about one hundred and fifty, two smaller lecture rooms, three class rooms, and two general laboratories for sophomore work. On the first floor are a photometric laboratory, a laboratory for the junior work of physics majors and pre-medical students, a laboratory for senior work, and a machine shop. A storage battery room containing a 64-volt storage battery, clock relay room and storerooms are also located on this floor. Distributing panels, connected with the main electrical switchboard, are located in the junior and senior laboratories. At all laboratory tables and lecture desks electric power, either D. C. or A. C., of any desired voltage is available either from the storage battery, a direct current generator, or the commercial, A. C. power supply. The lecture rooms and laboratories are conveniently arranged and adequately equipped.

A good supply of apparatus and measuring instruments gives excellent facilities for individual experiments and demonstration work. The machine shop is equipped with grinder, drill-press and screw-cutting lathes, all independently operated by separate motors, and a complete assortment of tools for wood and metal work.

Students taking the physics course as their major work are expected to take a total of 64 quarter hours in the department, including Physics 201, 301, 303, 308, 310c, 401 and 403. In addition they are required to take a total of 14 quarter hours in the Department of Electrical Engineering. They must take Mathematics 111a, 112b, 113c, 201, 301 and 302. They are advised to choose their electives from the following: Mechanical Drawing (C. E. 101), Chemistry 201, German 101 and 201, and Mathematics 401.

201. Elementary College Physics

Required of all sophomores majoring in a science, engineering, mathematics, pre-medical or pre-dental course. Recitations, three hours a week; laboratory work, two hours a week.

Assumes no previous knowledge of physics; covers the less mathematical portions of mechanics, heat, electricity, sound, and light. The laboratory work consists of about thirty individual quantitative experiments based on the fundamental principles studied in the lecture room.

202. Introduction to College Physics

Required of all sophomores majoring in English, Languages, History, Political Science, Business Administration or Education who do not take Physics 201.

Lectures and recitations, three hours a week; laboratory work, two hours a week.

A course similar to Physics 201, but adapted to the needs of non-technical students who expect to take no more courses in physical science. Greater emphasis is given to lecture demonstrations and less to problem solving. Recent developments in physics bearing directly on every-day life are included. The two-hour laboratory periods are devoted to instructor-conducted laboratory experiments, solution of problems, showing of technical films or individual laboratory experiments performed by the students.

301. Advanced General Physics

Junior elective. Lectures and recitations. Five hours a week.

A continuation of Physics 201; covers those portions of mechanics, heat, and electricity not included in the earlier course and an introduction to the study of sound and light.

303. Laboratory Physics

Junior elective. Four hours a week.

Except for necessary explanation, discussion and problem work based on the experiments, the entire time is devoted to laboratory work. The experiments are of a more advanced character than those in Physics 201 and involve the use of most of the standard instruments of physical measurement. About seventy experiments are performed, affording a study from the laboratory standpoint of most of the topics considered in Physics 301.

305. Physics for Pre-Medical Students

Required of all premedical students. Lectures or recitations, two hours a week; laboratory work, two hours a week.

Designed to meet the requirement in laboratory physics for admission to the best medical schools. About fifty individual quantitative experiments are performed, dealing with molecular physics, heat, electricity, sound and light.

308c. Selected Topics in Electricity and Electronics

Junior elective. Lectures and recitations, five hours a week.

A continuation of E. E. 302 (A. C. Circuits and Machines) adapted to the needs of physics majors, and an introduction to electronics.

After a brief treatment of the operation of alternating currrent machines, the course will include elementary electronics and other selected topics in electricity and magnetism not covered adequately by other physics courses.

310c. Laboratory Physics (selected topics)

A laboratory course to accompany Physics 308c. Four hours a week.

401. Advanced Physics

Senior elective. Lectures and recitations, five hours a week.

The subject-matter will be varied from year to year to meet the needs of the students electing the course. For 1950-1951 the course was as follows:

401ab. Wave Motion, Sound and Light

The general equations of wave motion are developed and a study is made of their application to sound and light. The velocity of sound and light waves, reflection, refraction, dispersion, defraction, interference and polarization are studied in theory and by experiment. Maxwell's equations for an electromagnetic wave and some of their applications are studied. The laboratory work consists of about eight experiments in sound and about twenty-five in light.

401c. Selected Topics in Modern Physics

History of the development of modern physics, properties of the electron, photoelectric emission, thermionic emission, electron tubes and their practical applications, passage of electricity through gases, x-rays, radioactivity and nuclear physics, and atomic structure. The laboratory work includes applications of many of the topics discussed in the lectures.

405. Advanced Physics

Senior elective. Lectures and recitations, three hours a week.

For the benefit of students who are interested in the recent developments of physics and who cannot devote to the subject the time required for the laboratory work of course 401, this course covers, in a series of lectures and demonstration experiments, most of the topics studied in the other course. Open to all students in the senior class who have sufficient foundation.

403. Advanced Laboratory Physics

A laboratory course to accompany Physics 401. Four hours a week.

425. Senior Essay

Required of all seniors as a prerequisite to graduation.

A report based upon a survey of the literature in some phase of physics supported by such investigations as may be needed to complete a paper of professional character, acceptable to the department. Each senior student will be assigned to a member of the department for assistance and supervision in the choice of a subject and the organization of the material. At least four hours a week during the second and third quarters will be devoted to this work.

DEPARTMENT OF POLITICAL SCIENCE

The curriculum of political science at The Citadel is designed to give the student a background in the political, social, and economic developments of the modern world. It seeks an understanding and interpretation of tendencies, a breadth of view, and a developed spirit of scientific inquiry; it undertakes to provide a broad, liberal education that is calculated to prepare a student for whatever his chosen profession or business may be. While this program of study is planned as a preparation for advanced and specialized education, or for employment, its broader purpose is that of educating our students for informed and responsible citizenship.

While political science at The Citadel concentrates its studies upon political authority or government, it is remembered that political science does not stand alone, that it is only one segment or section of the so-called "social sciences." These sciences as a group are interested in human society, in the relations that exist among men living in communities. This close interrelation of the several social sciences is recognized in the curriculum that requires certain history and economic courses as specified minors and recommends sociology, psychology, and philosophy as free electives in mapping out the program of study for the major in political science.

Those electing political science as the subject of their major interest are required to take American Government (Political Science 201) in the sophomore year. This is the basic course, for simple obligations of citizenship demand that every American citizen know his own government more intimately than he know any other. Moreover, this knowledge serves as a valuable standard of comparison in the later study of other governments.

For the requirements in the junor and senior years, see the tabulation of the political science curriculum under the heading, "Courses of Study." Two years of a modern language are required. There are twenty-four hours of electives which may be selected according to the individual's requirements and interests.

International Affairs Program

The Political Science Department has long been aware of the increased need for men trained in International Affairs and encourages students to prepare for careers in the Foreign Service, State Department, and Intelligence activities. Although the State Department does not

designate an arbitrary program of preparation, the curriculum of this department has been prepared in consultation with the State Department.

Students desiring to prepare themselves for a career in these fields should indicate such a desire at the beginning of their junior year. They will follow a special program by selecting their minor electives from specified sourses in History, Sociology, Psychology, English, and Modern Languages.

201. Survey of American Government

Required of sophomores electing Political Science. Open to other sophomores.

A comprehensive survey of the American political system is undertaken in this course. A careful study is made of the structure and operation of national, state, and local institutions. This course aims to develop in the student an appreciation of the underlying principles and to give him an insight into the responsibilities of citizenship.

303. International Law and Organization

Required of juniors electing Political Science. Open to other juniors who receive permission of the instructor.

This course is concerned with the development of modern international law and organization. It embraces a study of international law; of the legal relations of states and individuals as developed through customs, usage, and the decisions of national and international tribunals. Special attention will be given to the League of Nations, the United Nations, and the international machinery for the settlement of juridical, administrative, and legislative problems.

304bc. American Foreign Relations

Open to juniors and seniors. Required of juniors electing Political Science.

This is a study of the organization of the American government for the conduct of foreign relations, the control exerted by its various branches therein, and the methods of procedure followed. Attention is given to the important developments of the past few years, which have thrown new light upon different phases of our foreign relations.

305c. American Parties and Politics

Required of juniors electing Polical Science.

A survey of the composition and activities of parties and of the main lines of controversy regarding public policy. A study is made of the fundamental and current practice of politics in city, state, and nation,

stressing such topics as motives in politics, the relation of parties to other groups, party organization, nominating systems, campaign methods, and the programs and tendencies of major and minor parties.

306ab. Public Administration

Required of juniors electing Political Science.

A topical analysis of the principles of administrative organization of state and national governments of the United States, with special note taken of the implications of recent changes. The broad problems thus approached include delegation by the legislative body, administrative integration, personnel management, administrative appeals, and judicial review.

307. Economic Foundations of Modern Life

Required of juniors electing Political Science. Open to other students above freshman level.

This course is designed primarily to meet the requirements of all college students who desire a basic working knowledge of the interacting economic, social and political factors in modern life. Emphasis is placed on an analysis of the more important economic organizations and institutions which, in their functional capacities, constitute the economic order. The more common economic principles and processes are explained. Labor problems, transportation, trusts, and public finance are studied in so far as the confines of an introductory course permit.

308a. Public Personnel Administration

Open to juniors and seniors.

Public personnel management is concerned with the recruitment, examination, certification, position-classification, training, compensation and promotion service records of public employees. It embraces a study of retirement systems, the forms and methods of discipline and public service employee unions. While the subject under consideration is government employees, principles of universal application to the employee-management situation are brought to light.

401. The American Constitution

Required of seniors electing Political Science. Open to other seniors who receive permission of the instructor.

This course begins with a study of the English and colonial origins of the American governmental system. With a view to an appreciation of the underlying philosophy and basic principles of the Constitution, attention is given to the part which social, economic, and political conditions played in the framing of the organic law. The third quarter is devoted to a study of the decisions of the Court which have served

as landmarks in the development of the American constitutional system. Emphasis is placed upon the problems of the present day.

403a. Comparative Government

Open to juniors and seniors.

A comparative study of the governments in the principal countries of the world.

405. International Politics

Required of seniors electing Political Science. Open to other seniors who receive permission of the instructor.

This course is concerned with the development and distribution of power among nations. Special emphasis is given to the geographic, demographic, economic, political, and military bases of national power. National policies of the major powers in regard to military preparedness are emphasized to illustrate the relation of armaments to government and of military power to diplomacy. Students are required to analyze various problems and situations based on their knowledge of the above factors.

406ab. Government Finance

Three hours a week. Required of seniors electing Political Science. Prerequisite, Pol. Sci. 307.

The objective of this course is to introduce students to sound methods of analyzing the spending, taxing and borrowing policies of the agencies of the state. Attention is directed to the broad social, economic and political aspects of fiscal policies and the correlative administrative problems.

407. Political Theory

Open to juniors and seniors. Required of seniors electing Political Science.

This course is designed to give a survey of the evolution of systematic political reasoning and to provide a foundation for the understanding of recent and contemporary political ideologies.

408ab. The Law and Politics of Administration

Three hours a week. Open to seniors with adequate background in History, Economics and Political Science.

A study of the regulation of economic and social forces by administrative tribunals. The principles established by state and federal courts for the guidance of administrative authorities are examined. Remedies

for the protection of individual rights against the rule-making and adjudicative procedures of such tribunals receive special consideration.

409ab. Far Eastern Affairs

Open to juniors and seniors.

This course is designed to give the student a broad, general knowledge of the Far East and its problems. Special attention will be given to Japan, China, India, and the role of the Far East in American foreign policy.

425. Senior Essay

Required of all seniors as a prerequisite to graduation.

Approval of the topic and appropriate guidance and counsel will be supplied by that member of the departmental staff who offers courses in the field related to the area of research. Prospective candidates for graduation in June are required to have the outline of the essay, together with the supporting bibliography, approved by January 15.

The first typed draft of the essay must be submitted not later than March 15, or a full term before graduation.

DEPARTMENT OF STUDENT AFFAIRS

This department has the following objectives:

1. To assist in college administration.

2. To co-ordinate the efforts of alumni and other friends of the college in promoting the welfare of The Citadel.

3. To encourage wholesome student activities of every type in an attempt to enlist the interest and active participation of every student in at least one activity.

4. To supplement the training given by the departments of instruction.

5. To provide services and facilities which contribute to the comfort and guidance of students.

Athletics are directed by committees composed of faculty, students, and alumni. All other cadet activities are directed by the Cadet Activity Committee and its sub-committees.

The director of Student Affairs is secretary to all committees and serves as treasurer for all student activity funds. All moneys received by him are acknowledged by receipt and deposited in the bank to the credit of the activity concerned. Withdrawals are made by check with the approval of the president of The Citadel. Accounts are audited monthly and published.

To help support the activities each student pays a student activity fee of $17.00 per quarter. This fee is distributed to the various activities as needed.

It is the policy of The Citadel for each department to be self-sustaining financially. A portion of the student activity fee is allocated to take care of certain costs of administration and maintenance and all costs of services and supplies required in the conduct of the activities.

Athletics

Since the fullest advantages of academic and military life can be derived only by men of sound physique, every student is encouraged to participate in sports so far as his duties will permit. In our increasingly complex interdependent society the lessons of loyalty, cooperation, and self-sacrifice learned in athletics are of importance. It is the policy of The Citadel to give every reasonable encouragement to the physical development of students. Fortunately the climate of Charleston makes possible a year-round program of outdoor sports.

The members of the athletic staff are competent and experienced contests. A physician is in attendance at every scheduled athletic event. coaches, who use due precautions to prevent injuries in training or in contests.

An extensive program of intramural athletics assures every student an opportunity to participate in some form of organized sport. Keen interest has been exhibited in the inter-company competitions in touch football, basketball, boxing, tennis, golf, swimming, softball, volleyball, track, soccer, boating, wrestling, and other sports.

The Citadel is a member of the Southern Conference. Teams engage in intercollegiate competition in football, basketball, boxing, tennis, golf, baseball, fencing, wrestling and rifle shooting.

The location of The Citadel on the banks of the Ashley River provides natural facilities for water sports. The large number of students in the Yacht Club testifies to the popularity of such sports.

Other Cadet Affairs

The system at The Citadel requires that every cadet spend most of his time within the limits of the campus. No cadets leave the campus except at stated leave periods or by specific written permission for a stated purpose. This imposes on the college the duty of providing on the campus the requisites of a stimulating religious, social, intellectual, and recreational life. The college is interested in guiding the development of every student as an individual; hence, to supplement the formal training carried on by the academic and professional departments, the department of student activities is charged with the duty of planning, coordinating, and supervising a variety of activities to enlist the interest and stimulate the development of students. These include literary and aesthetic pursuits, athletics, and social and recreational activities.

Detailed information concerning the various activities supervised by the Student Activity Committee will be found in the following paragraphs.

Publications

The Bull Dog is published semi-monthly by a staff of students. It serves as the campus newspaper and is financed by an allotment from the Student Activities Fee, augmented by the revenue from subscriptions and the sale of advertising space.

The Shako, the literary magazine, is published three times a year. It is supported by voluntary subscriptions, the income from advertisements, and an allotment from the Student Activities Fee.

The Sphinx is published annually by a staff of students. This publications serves as a semi-official record for the year. By means of copy and photographs, the faculty and staff, the student classes, the cadet military organization, the athletic activities, the social affairs and other student programs are portrayed vividly to preserve memories of student life for posterity. *The Sphinx* is financed by an allotment from the Student Activities Fee and the sale of advertising space.

Literary

Four student societies offer opportunities for discussing subjects of cultural interest and for developing proficiency in public speaking: the Calliopean Literary Society, the International Relations Club, the English Club, and the Round Table.

The Calliopean Literary Society sponsors forensic interests, including radio speaking, intramural and intercollegiate debating, and oratory. Membership is open to all students.

The International Relations Club is devoted to the study of contemporary world economic and political problems. Membership is restricted to those students especially interested in government and politics.

The English Club is an organization of students majoring in English. At their meetings professional writers are heard, and problems of literary interest are discussed.

The Round Table is a discussion group with a limited membership. Elections are made from lists prepared by the faculty of those students with marked intellectual interests.

Musical Activities

The student orchestra, under the direction of Sergeant Leon Freda, furnishes the music for all informal dances.

The glee club, under the direction Lt. G. M. Nichols, serves as the choir at chapel services and gives programs in Charleston churches.

The college band, under the direction of Sergeant Freda, provides the music for parades, guard mount, and other official ceremonies.

The music club was formed to bring together in congenial association all students interested in good music. These students have for their use the records and phonograph given The Citadel by the Carnegie Foundation.

The concert orchestra is complementary to the glee club. Its purpose is the development of instrumental musical talent.

Social Functions

The Citadel dances, managed and controlled by the Standing Hop Committee, are an important part of the social life of the Corps. Frequent informal dances are given, the music being furnished by the student orchestra.

There are five formal dances each year: The Thanksgiving Hop, the Christmas Hop, the Senior Hop, the Easter Hop, and the Commencement Hop. These are financed by the Class Fund, a fund made up of quarterly optional payments of $15.00 (Fall quarter, $7.00; winter quarter, $4.00 and spring quarter, $4.00) a student, of which 20% is an admission tax. A student paying this fee is admitted to all formal dances without further charge. Making separate payments for the individual dances increases the cost so much that patrons are advised to include the payment to the Class Fund with each quarterly installment paid the quartermaster in order that the student may enjoy these dances at a minimum cost.

The Citadel hostess, Mrs. Jesse Gaston, serves as advisor in matters pertaining to the social activities of the college. Under her supervision classes in dancing are conducted, informal dances are held, and a registry of suitable homes for students' lady guests is provided.

CLUBS AND SOCIETIES

The following organizations have been established for the several purposes indicated by their titles: Knox Chemical Society; Student Chapter, American Society of Civil Engineers; Beta Iota Chapter of Pi Sigma Alpha, Political Science Fraternity; Economics Honor Society; Pre-Medical Club; Society of American Military Engineers; American Ordnance Association; Yacht Club; Block "C" Club; Hunting Club; and Riding Club.

THE COMMANDANT'S DEPARTMENT

The Commandant of Cadets is charged with the co-ordination of R.O.T.C. affairs and with the maintenance of discipline over all students attending The Citadel. He controls the Corps of Cadets in their daily routine of duties, grants leaves and privileges provided by regulations and maintains conduct records of all cadets. The department exercises supervision over barracks, controls the cadet guard, the Officer in Charge and keeps the President of the college informed of all matters pertaining to the conduct and discipline of the Corps of Cadets and the veteran students.

The Citadel is a military college and it is therefore essential that a high standard of discipline be maintained. Through a system of merits and demerits, a record is kept of the conduct of each cadet. This record materially influences both his class and military standing. In the cases of cadets who fail to respond to ordinary corrective measures, privileges are curtailed. Any cadet exceeding the allowed limit of demerits for the year may be dismissed.

By instruction and example cadets are taught to be neat in person and in uniform. Daily inspections of rooms insure cleanliness and good order. Through individual personal contacts and group meetings, cadets are encouraged to uphold the traditions of The Citadel and the standards of honor, integrity and courtesy, which are an outstanding mark of The Citadel cadet and gentleman.

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